NAMED THINGS IN MATHEMATICS

© Dr. John Andraos, 2003 - 2011

Department of Chemistry, York University
4700 Keele Street, Toronto, ONTARIO M3J 1P3, CANADA

For suggestions, corrections, additional information, and comments please send e-mails to c1000@careerchem.com

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Timeline of Named Mathematical Concepts

MATHEMATICAL CONCEPT	YEAR	REFERENCES
"robust" term (Box, G.E.P.)	1959	Box, G.E.P.; Watson, G.S. *Biometrika* **1962**, 49, 93 Box, G.E.P.; Tiao, G.C. *Biometrika* **1962**, 49, 419
Abel's identities	1827	Abel, N.H. *J. reine angew. Math.* **1826**, 1, 65 Abel, N.H. *J. reine angew. Math.* **1827**, 2, 101 Abel, N.H. *J. reine angew. Math.* **1827**, 3, 160 Abel, N.H. *Oeuvres,* 2 vol., (Sylow; Lie, eds.), Christiania, 1881
Abel's inequality	1827	Abel, N.H. *J. reine angew. Math.* **1826**, 1, 65 Abel, N.H. *J. reine angew. Math.* **1827**, 2, 101 Abel, N.H. *J. reine angew. Math.* **1827**, 3, 160 Abel, N.H. *Oeuvres,* 2 vol., (Sylow; Lie, eds.), Christiania, 1881
Abel's integral equation	1827	Abel, N.H. *J. reine angew. Math.* **1826**, 1, 65 Abel, N.H. *J. reine angew. Math.* **1827**, 2, 101 Abel, N.H. *J. reine angew. Math.* **1827**, 3, 160 Abel, N.H. *Oeuvres,* 2 vol., (Sylow; Lie, eds.), Christiania, 1881
Abel's test for convergence	1827	Abel, N.H. *J. reine angew. Math.* **1826**, 1, 65 Abel, N.H. *J. reine angew. Math.* **1827**, 2, 101 Abel, N.H. *J. reine angew. Math.* **1827**, 3, 160

		Abel, N.H. *Oeuvres,* 2 vol., (Sylow; Lie, eds.), Christiania, 1881
Abel's test for infinite integrals	1827	Abel, N.H. *J. reine angew. Math.* **1826**, 1, 65 Abel, N.H. *J. reine angew. Math.* **1827**, 2, 101 Abel, N.H. *J. reine angew. Math.* **1827**, 3, 160 Abel, N.H. *Oeuvres,* 2 vol., (Sylow; Lie, eds.), Christiania, 1881
Abel's theorem on multiplication of series	1827	Abel, N.H. *J. reine angew. Math.* **1826**, 1, 65 Abel, N.H. *J. reine angew. Math.* **1827**, 2, 101 Abel, N.H. *J. reine angew. Math.* **1827**, 3, 160 Abel, N.H. *Oeuvres,* 2 vol., (Sylow; Lie, eds.), Christiania, 1881
Abelian group	1827	Abel, N.H. *J. reine angew. Math.* **1826**, 1, 65 Abel, N.H. *J. reine angew. Math.* **1827**, 2, 101 Abel, N.H. *J. reine angew. Math.* **1827**, 3, 160 Abel, N.H. *Oeuvres,* 2 vol., (Sylow; Lie, eds.), Christiania, 1881
Airy equation	1838	Airy, G.B. *Trans. Cambr. Phil. Soc.* **1838**, 6, 379 Stokes, G.G. *Trans. Cambr. Phil. Soc.* **1858**, 10, 105 Airy, G.B. *An Elementary Treatise on Partial Differential Equations*, 1866
Airy integral	1838	Airy, G.B. *Trans. Cambr. Phil. Soc.* **1838**, 6, 379 Stokes, G.G. *Trans. Cambr. Phil. Soc.* **1858**, 10, 105 Airy, G.B. *An Elementary Treatise on Partial Differential Equations*, 1866
Airy's disk	1838	Airy, G.B. *Trans. Cambr. Phil. Soc.* **1838**, 6, 379 Stokes, G.G. *Trans. Cambr. Phil. Soc.* **1858**, 10, 105 Airy, G.B. *An Elementary Treatise on Partial Differential Equations*, 1866
aleph-null symbolism for transfinite numbers (Cantor)	1874	Cantor, G. *J. reine angew. Math.* **1874**, 77, 258 Cantor, G. *Gesemmalte Abh.* **1874**, 115 Cantor, G. *Gesammelte Abhandlungen*, Springer: Berlin, 1932
Alexander horned sphere	1924	
Alexander polynomial	1928	Alexander, J.W. *Trans. Am. Math. Soc.* **1928**, 30, 275
algebra (al-Khwarizmi)	810	Al-Khwarizmi, *Al-jabr w'al muqabala (Calculation by Completion and Balancing)*, 810 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
algebraic topology (Poincare)	1895	Poincare, H. *J. Ecole Polytechnique* **1895**, 1[2], 1 Poincare, H. *Oeuvres* **1895**, 6, 193

analytical geometry (Descartes)	1637	Descartes, R. *La Geometrie*, 1637
Apollonius' circle	-225	*Conics* Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
application of determinants to solution of systems of linear equations (Leibniz)	1693	
application of Laplace transforms to integral equations (Bateman)	1906	Bateman, H. *Messenger of Mathematics* **1906**, 35, 140 Bateman, H. *Proc. London Math. Soc.* **1906**, 4, 90 Bateman, H. *Trans. Cambr. Phil. Soc.* **1906**, 20, 233
Archimedes' axiom	-250	*Archimedis Opera Omnia*, 3 vol., (J.L. Heiberg, ed.), Teubner: Leipzig, 1913 – 5 *Les Oeuvres completes d'Archimede*, transl. P. Ver Ecke, Paris, 1921
Archimedes' principle	-250	*Archimedis Opera Omnia*, 3 vol., (J.L. Heiberg, ed.), Teubner: Leipzig, 1913 – 5 *Les Oeuvres completes d'Archimede*, transl. P. Ver Ecke, Paris, 1921
Archimedes' spiral	-250	*Archimedis Opera Omnia*, 3 vol., (J.L. Heiberg, ed.), Teubner: Leipzig, 1913 – 5 *Les Oeuvres completes d'Archimede*, transl. P. Ver Ecke, Paris, 1921
Archimedian screw	-250	*Archimedis Opera Omnia*, 3 vol., (J.L. Heiberg, ed.), Teubner: Leipzig, 1913 – 5 *Les Oeuvres completes d'Archimede*, transl. P. Ver Ecke, Paris, 1921
arctan infinite series (Leibniz)	1673	
Argand diagram	1806	Argand, J.R. *Essai sur une maniere de representer les quantites imaginaires dans les constructions geometriques*, Paris, 1806
associative law (Hamilton)	?	
axiom of choice (Levi, Beppo)	1902	Levi, B. *R. Ist. Lombardo Sci. Lett. Rendic.* **1902**, 35, 863
Banach spaces	1923	Banach, S. *Fund. Math.* **1923**, 4, 7 Banach, S. *Studia Math.* **1929**, 1, 211; 223 Banach, S. *Theorie des operations lineaires*, Warszawa, 1932
Banach-Tarski paradox	1924	Banach, S.; Tarksi, A. *Fund. Math.* **1924**, 6, 244
barber paradox (Russell)	1918	Russell, B. *Introduction to Mathematical Philosophy*, 1919
Bayes theorem	1763	Bayes, T. *Essay towards solving a problem in the doctrine of chances*, 1763 Bayes, T. *Phil. Trans. Roy. Soc.* **1763**, 53, 370 Barnard, G.A. *Biometrika*, **1958**, 45, 296
Bernoulli distribution	1800	Bernoulli, Jakob *Opera*, 2 vol., Cramer-Philibert: Geneva, 1744 Bernoulli, Johann *Opera Omnia*, 4 vol., Lausanne-Geneva, 1742
Bernoulli effect	?	Bernoulli, Jakob *Opera*, 2 vol., Cramer-Philibert: Geneva, 1744

		Bernoulli, Johann *Opera Omnia*, 4 vol., Lausanne-Geneva, 1742
Bernoulli law of flow (Bernoulli, Daniel)	1738	Bernoulli, Daniel *Hydrodynamica*, 1738
Bernoulli numbers (Bernoulli, Jakob)	1713	Bernoulli, Jakob *Ars Conjectandi*, Basel, 1713 (trans. S. Vastel, Paris, 1801)
Bernoulli trials	?	Bernoulli, Jakob *Opera*, 2 vol., Cramer-Philibert: Geneva, 1744 Bernoulli, Johann *Opera Omnia*, 4 vol., Lausanne-Geneva, 1742
Bernoulli's differential equation	?	Bernoulli, Jakob *Opera*, 2 vol., Cramer-Philibert: Geneva, 1744 Bernoulli, Johann *Opera Omnia*, 4 vol., Lausanne-Geneva, 1742
Bernoulli's lemniscate	1694	Bernoulli, Jakob *Acta Eruditorum* **1694**, 13, 262
Bernoulli's theorem	?	Bernoulli, Jakob *Opera*, 2 vol., Cramer-Philibert: Geneva, 1744 Bernoulli, Johann *Opera Omnia*, 4 vol., Lausanne-Geneva, 1742
Bernstein polynomials	1911	Bernstein, S.N. *On the Best Approximation of Continuous Functions by Means of Polynomials of Given Degree*, Kharkov, 1912 (doctoral dissertation) Bernstein, S.N. *Memoires de l'Academie Royale de Belgique, Classe des Sciences Collections,* **1912**, 4[2], 1 (French translation)
Bessel functions	1817	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Bessel inequality	?	
Bessel integral equation	1817	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Betti numbers	1871	Betti, E. *Annali di matematica pura e applicata*, **1871**, 4[2], 140
Bezout elimination	1779	Bezout, E. *Theorie generale des equations algebriques*, Paris, 1779
Bieberbach conjecture	1916	Bieberbach, L. *Sitzungber. Preussischen Akad. Wiss. Phys-Math. Kl.* **1916**, 940
Bieberbach polynomials	1914	Bieberbach, L. *Rend. Circ. Mat. Palermo* **1914**, 38, 98
binary arithmetic (Leibniz)	1679	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Binet formulas	?	
Bohr-Landau theorem	1914	Bohr, H.; Landau, E. *Math. Ann.* **1913**, 74, 3 Bohr, H.; Landau, E.; Littlewood, J.E. *Bull. Acad. Belg.* **1913**, 1144 Bohr, H.; Landau, E. *Rend. Circ. Mat. Palermo* **1914**, 37, 269 Bohr, H. *Compt. Rend.* **1914**, 158, 1986 Landau, E.; Bohr, H. *Compt. Rend.* **1914**, 158, 106 Bohr, H. *Compt. Rend. Soc. Math. Fr.* **1914**, 52 Bohr, H. *Acta Math.* **1915**, 24, 1

		Bohr, H.; Landau, E. *Nachr. Ges. Wiss. Göttingen* **1923**, 71 Bohr, H. *Nachr. Ges. Wiss. Göttingen* **1924**, 168
Boolean algebra	1854	Boole, G. *Mathematical Analysis of Logic*, 1847 Boole, G. *The Laws of Thought on which are founded the Mathematical Theories of Logic and Probabilities*, 1854 Boole, G. *Collected Logical Works*, 2 vol., (P. Jourdain, ed.), London, 1916
Borel measure	1894	Borel, E. *Lecons sur la theorie des fonctions*, Gauthier-Villars: Paris, 1898
Borromean rings	?	
Box-Cox transformations	1964	Box, G.E.P.; Cox, D.R. *J. Roy. Stat. Soc. B* **1964**, 26B, 211
Brachistochrone problem (Bernoulli, Johann)	1696	Bernoulli, Johann *Acta Eruditorum* **1696**, 15, 270 Bernoulli, Johann *Opera Omnia* **1696**, 1, 161 Bernoulli, Johann *Opera Omnia*, 4 vol., Lausanne-Geneva, 1742 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Brianchon theorem	1806	Brianchon, C.J. *J. Ecole Polytechnique* , **1806**, *Recherches sur la determinations d'une hyperbole equilatere, au moyen de quatres conditions donnees*, 1806 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Briggs's logarithms	1617	Briggs, H. *Logarithmorum chilias prima*, 1617 Briggs, H. *Arithmetica logarithmica, sive logarithmorum chiliades triginta*, London, 1624 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Buffon needle problem	1777	Buffon, G. *Essai d'arithmetique morale. Supplement a "L'Histoire Morale"*, **1777** Lanessan, J.L. (ed.) *Oeuvres completes de Buffon*, 14 vols., Paris, 1884 - 1885
calculus of finite differences (Euler)	1755	Euler, L. *Opera Omnia*, 46 vol., Teubner and O. Fussli: Leipzig, 1911 - 1957
calculus of tensors (Levi-Civita)	1887	Ricci, G.; Levi-Civita, T. *Math. Ann.* **1901**, 54, 125
calculus of variations applied to theory of elasticity (Germain)	1821	Germain, S. *Remarques sur la nature, les bornes et l'etendue de la question des surfaces elastique et equation generale de ces surfaces*, Paris, 1821, 1826 Germain, S. *Memoire sur l'emploi de l'epaisseur dans la theorie des surfaces elastiques*, Paris, 1880
Cantor fractals	?	Cantor, G. *Gesammelte Abhandlungen*, Springer: Berlin, 1932
Cantor set theory	1874	Cantor, G. *Gesammelte Abhandlungen*, Springer: Berlin, 1932

Cantor's continuum hypothesis	1874	Cantor, G. *Gesammelte Abhandlungen*, Springer: Berlin, 1932
Cardano's solution of cubics	1545	Cardano, G. *Ars Magna*, 1545
cartesian co-ordinate system	1637	Descartes, R. *La Geometrie*, 1637
Cassinian curve	1680	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
catenoid equation (Bernoulli, Jakob)	1690	Bernoulli, Jakob *Acta Eruditorum* **1690**, 9, 219 Bernoulli, Jakob *Acta Eruditorum* **1692**, 11, 207 Bernoulli, Jakob *Opera*, 2 vol., Cramer-Philibert: Geneva, 1744
Cauchy frequency distribution	1830	Cauchy, A.L. *Memoire sur les integrales definies prises entre des limites imaginaires*, Paris, 1825 Cauchy, A.L. *Oeuvres,* 26 vol., Gauthier-Villars: Paris, 1882 - 1958
Cauchy generalized mean value theorem	1830	Cauchy, A.L. *Memoire sur les integrales definies prises entre des limites imaginaires*, Paris, 1825 Cauchy, A.L. *Oeuvres,* 26 vol., Gauthier-Villars: Paris, 1882 – 1958
Cauchy integral formula	1830	Cauchy, A.L. *Memoire sur les integrales definies prises entre des limites imaginaires*, Paris, 1825 Cauchy, A.L. *Oeuvres,* 26 vol., Gauthier-Villars: Paris, 1882 - 1958
Cauchy integral theorem	1830	Cauchy, A.L. *Memoire sur les integrales definies prises entre des limites imaginaires*, Paris, 1825 Cauchy, A.L. *Oeuvres,* 26 vol., Gauthier-Villars: Paris, 1882 - 1958
Cauchy rule of series	1827	Cauchy, A.L. *Memoire sur les integrales definies prises entre des limites imaginaires*, Paris, 1825 Cauchy, A.L. *Oeuvres,* 26 vol., Gauthier-Villars: Paris, 1882 - 1958
Cauchy tests for convergence	1827	Cauchy, A.L. *Memoire sur les integrales definies prises entre des limites imaginaires*, Paris, 1825 Cauchy, A.L. *Oeuvres,* 26 vol., Gauthier-Villars: Paris, 1882 – 1958
Cauchy theorem of existence of a limit	1827	Cauchy, A.L. *Memoire sur les integrales definies prises entre des limites imaginaires*, Paris, 1825 Cauchy, A.L. *Oeuvres,* 26 vol., Gauthier-Villars: Paris, 1882 - 1958
Cauchy's theorem (group theory)	1845	Cauchy, A.L. *Compt. Rend.* **1846**, 23, 251 Cauchy, A.L. *Oeuvres,* 26 vol., Gauthier-Villars: Paris, 1882 - 1958
Cauchy-Schwarz inequality	1830	Cauchy, A.L. *Memoire sur les integrales definies prises entre des limites imaginaires*, Paris, 1825

		Cauchy, A.L. *Oeuvres,* 26 vol., Gauthier-Villars: Paris, 1882 - 1958
Cavalieri's theorem	1635	Cavalieri, B. *Geometria indivisibilibus continuorum nova quadam ratione promota*, 1635
Cayley matrix theory	1855	Cayley, A. *Collected Mathematical Papers*, 13 vol., Cambridge University Press: Cambridge, 1889 – 1898 Cayley, A. *Cambr. Phil. Soc.* **1849**, 8, 75 Cayley, A. *Phil. Trans. Roy. Soc. London* **1858**, 148, 17
Cayley-Hamilton theorem	1855	Cayley, A. *Collected Mathematical Papers*, 13 vol., Cambridge University Press: Cambridge, 1889 - 1898
Ceva theorem	1678	Ceva, G. *De lineis rectis*, 1678 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
chaos theory (Lorenz, Edward)	1961	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Chebyshev (Tchebyschef) approximation	1890	Tchebychef, T. *Acta Math.* **1890**, 14, 305 Tchebychef, T. (A.A. Markov, N.Y. Sonin, eds.) *Oeuvres*, 2 vols., St. Petersburg, 1899 - 1907
Chebyshev (Tchebyschef) polynomials	1890	Tchebychef, T. *Acta Math.* **1890**, 14, 305 Tchebychef, T. (A.A. Markov, N.Y. Sonin, eds.) *Oeuvres*, 2 vols., St. Petersburg, 1899 - 1907
Chebyshev's (Tchebyschef) inequality	1890	Tchebychef, T. *Acta Math.* **1890**, 14, 305 Tchebychef, T. (A.A. Markov, N.Y. Sonin, eds.) *Oeuvres*, 2 vols., St. Petersburg, 1899 - 1907
chi-square goodness of fit test (Pearson, Karl)	1900	Pearson, K. *Phil. Mag.* **1900**, 50[5], 157 Fisher, R.A. *J. Roy. Statist. Soc.* **1922**, 85, 87; 597 Fisher, R.A. *J. Roy. Statist. Soc.* **1924**, 87, 442 Fisher, R.A. *Atti Cong. Int. Math. Bologna* **1928**, 6, 94
Chinese remainder theorem (Chiu-Shao, Ch'in)	1247	*Mathematical Treatise in Nine Sections* Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Church-Turing principle	1936	Church, A. *Am. J. Math.* **1936**, 58, 345 Turing, A. *Proc. London Math. Soc.* **1936**, 42(2), 230
Clifford algebra	1882	Clifford, W.K. *Mathematical Papers*, Macmillan: London, 1882

Clifford theorem	1882	Clifford, W.K. *Mathematical Papers*, Macmillan: London, 1882
co-ordinate term (Leibniz)	1692	Leibniz, G.W. *Acta Eruditorum* **1691**, 10, 277 Leibniz, G.W. *Mathematische Schriften* **1691**, 5, 243
commutative law (Servois, Francois)	?	
compact packing of spheres (Kepler)	1611	
concept of maximum likelihood (Fisher)	1921	Fisher, R.A. *Metron* **1921**, 1(4), 1 Fisher, R.A. *Proc. Cambr. Phil. Soc.* **1932**, 28, 257 Fisher, R.A. *Proc. Roy. Soc. A* **1934**, 144A, 285 Fisher, R.A. *Proc. Roy. Soc. A* **1934**, 146A, 1
concept of sample space in probability theory (von Mises)	1919	Von Mises, R. *Math. Zeitschr.* **1919**, 4, 1 Von Mises, R. *Math. Zeitschr.* **1919**, 5, 52 Von Mises, R. *Probability, Statistics, and Truth*, 1928 (German); 1939 (English)
conchoid of Nicomedes	-230	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
conic sections (Apollonius)	-225	*Conics* Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
continued fraction (Cataldi)	1590	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
convergence of ratio of successive Fibonacci numbers to golden number (Simson, R.)	1753	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
cos, cot names (Gunter, Edmund)	1620	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Cox significance testing (Cox, David)	1977	Cox, D.R. *Scand. J. Statist.* **1977**, 4, 49
Coxeter graph, group, matrix	1968	Coxeter, H.S.M. *Annals of Mathematics* **1934**, 35, 588 Coined in Bourbaki, N. *Elements de Mathematiques Fascicule XXXIV Groupes et Algebres de Lie, Chap. 4,5,6* Hermann: Paris, 1968, p. 9 – 22.
Cramer's rule	1750	Cramer, G. *Introduction a l'analyse des lignes courbes algebriques*, Geneva, 1750, Chapter 3.
cybernetics name (Wiener)	1948	Wiener, N. *Cybernetics: or, Control and Communication in the Animal and the Machine*, 1948
D'Alembert's paradox	?	

D'Alembert's principle	1743	D'Alembert, J. LeR. *Traite de Dynamique*, 1743 D'Alembert, J. LeR. *Traite de l'equilibre et du mouvement des fluides*, 1744 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
D'Alembert's ratio test	1743	D'Alembert, J. Le R. *Hist. Acad. Sci. Berlin*, **1746**, 2, 182
D'Alembert's test for convergence	1743	D'Alembert, J. Le R. *Hist. Acad. Sci. Berlin*, **1746**, 2, 182
D'Alembertian	1743	D'Alembert, J. Le R. *Hist. Acad. Sci. Berlin*, **1746**, 2, 182
de Moivre's theorem	1707	De Moivre, A. *Phil. Trans. Roy. Soc.* **1722 - 1723**, 32(373), 162 De Moivre, A. *The Doctrine of Chances*, London, 1718 (1st ed.); 1738 (2nd ed.); 1756 (3rd ed.)
de Morgan's laws	1847	De Morgan, A. *Trans. Cambr. Phil. Soc.* **1849**, 8, 379 De Morgan, A. *Trans. Cambr. Phil. Soc.* **1856**, 9, 79 De Morgan, A. *Trans. Cambr. Phil. Soc.* **1858**, 10, 173; 331; 428
decimal fractions (Stevin)	1585	Stevin, S. *Les Oeuvres Mathematiques*, (A. Girard, ed.) Leyde (Elzevir), 1634 *De Thiende* Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
decimal notation (Indian mathematicians)	594	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Dedekind cuts	1872	Dedekind, R. *Stetigkeit und irrationale Zahlen*, Brunswick, 1872 Dedekind, R.; Weber, H. *J. de Crelle* **1882**, XCII, 331
Denjoy integral	1912	Denjoy, A. *Compt. Rend.* **1912**, 154, 859; 1075 Denjoy, A. *Compt. Rend.* **1912**, 155, 135
Desargue's theorem	1650	Desargues, G. *Oeuvres,* Leiber: Paris, 1864
Descartes rule of signs	1637	Descartes, R. *La Geometrie*, 1637
Descartes' laws	1637	Descartes, R. *La Geometrie*, 1637
descriptive geometry (Monge)	1763	Monge, G. *Geometrie descriptive*, Paris, 1798
determinant name (Cauchy)	1812	Cayley, A. *Cambr. Phil. Soc.* **1849**, 8, 75
differential geometry	?	
Diophantine equations	250	*Diophanti Alexandrini Opera Omnia*, (P. Tannery, ed.), 2 vol., Teubner: Leipzig, 1893 – 1895 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html

Dirichlet condition	1829	Dirichlet, P.G.L. *J. reine angew. Math.* **1829**, 4, 157 Lejeune-Dirichlet, P.G. *Werke*, 2 vol., Reimer: Berlin, 1889 - 1897
Dirichlet definition of a function	1837	Dirichlet, P.G.L. *Abh. Akad. Wiss. Berlin* **1837**, 45 Dirichlet, P.G.L. *Werke* **1837**, 1, 315 Lejeune-Dirichlet, P.G. *Werke*, 2 vol., Reimer: Berlin, 1889 - 1897
Dirichlet problem	1829	Dirichlet, P.G.L. *J. reine angew. Math.* **1829**, 4, 157 Lejeune-Dirichlet, P.G. *Werke*, 2 vol., Reimer: Berlin, 1889 – 1897
Dirichlet test for convergence	1829	Dirichlet, P.G.L. *J. reine angew. Math.* **1829**, 4, 157 Lejeune-Dirichlet, P.G. *Werke*, 2 vol., Reimer: Berlin, 1889 - 1897
distributive law (Servois, Francois)	?	
drawing of regular 17-gon (Gauss)	1796	Gauss, C.F. *Disquisitiones Arithmeticae*, 1796 Gauss, C.F. *Werke*, 12 vol., Göttingen, 1870 – 1927 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
D^n f(x) operator notation for derivatives (Arbogast, Louis)	1800	
e is transcendental (Hermite)	1873	Hermite, C. *Compt. Rend.* **1873**, 77, 18; 74; 226; 285 Hermite, C. *Oeuvres* **1873**, 3, 150
elliptic geometry (Riemann)	1854	Riemann, G.F.B. *Elliptische Funktionen*, (H. Stahl, ed.), Leipzig, 1899
Epiminides paradox (liar paradox)	?	
Eratosthenes prime number sieve	-230	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Erlangen program (Klein)	1872	Klein, F. *Vergleichende Betrachtungen uber neuere geometrische Forschungen (Erlangen Programm)*, Akademische Verlagsgesellschaft, Leipzig, 1872 Klein, F. *Gesemmalte Math Abh.* **1872**, 1, 460
Euclidean geometry	-300	Euclid, *Elementa*, 5 vol., (J.L. Heiberg, ed.), Teubner: Leipzig, 1883 – 1888 *Stoicheion (The Elements)*
Euler definition of a function	1748	Euler, L.. *Opera Omnia* , *ser. 1* **1748**, 8 Euler, L.. *Opera Omnia* , *ser. 1* **1748**, 9 Euler, L. *Opera Omnia*, 46 vol., Teubner and O. Fussli: Leipzig, 1911 - 1957
Euler integral	?	Euler, L. *Opera Omnia*, 46 vol., Teubner and O. Fussli: Leipzig, 1911 - 1957
Euler magic square	?	Euler, L. *Opera Omnia*, 46 vol., Teubner and O. Fussli: Leipzig, 1911 - 1957
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Fermat method of maxima and minima	1629	Fermat, P. *Oeuvres* **1629**, 1, 92
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Hadamard proof of prime number theorem	1896	
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Lagrange method for reducing quadratic forms	1759	Lagrange, J.L.. (J.A. Serret, ed.) *Oeuvres*, 14 vol., Gauthier-Villars: Paris, 1867 – 1892
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Lorentz transformation	1895	Lorentz, H.A. *Versuch einer Theorie der elektrischen und optischen Erscheinungen in bewegten Korpen*, E.J. Brill: Leiden, 1895
Lorentzian function	1895	Lorentz, H.A. *Versuch einer Theorie der elektrischen und optischen Erscheinungen in bewegten Korpen*, E.J. Brill: Leiden, 1895
loxodromic spiral (Nunez, Pedro)	1533	
Lucas numbers, sequence	?	
Lyapunov exponent	1899	Lyapunov, A.M. *The General Problem of the Stability of Motion*, Ph.D. thesis, St. Petersburg, 1899; *Annales de la Faculte des sciences de l'Universitie de Toulouse, 2nd ser.* **1907**, 9, 203; *Annals of Mathematics No. 17*, Princeton, 1947
Maclaurin series	1742	Maclaurin, C. *A Treatise of Fluxions Vol. 1 and 2*, Edinburgh, 1742
magic circle (Hui, Yang)	1275	*Cheng Chu Tong Bian Ben Mo (Alpha and Omega of variations on multiplication and division)* Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
magic cube (Chhi-shou, Pao)	?	
magic squares (Chinese mathematicians)	90	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Mandelbrot set	1967	Mandelbrot, B. *Les objets fractals, forn, hasard et dimension*, Nouvelle Bibliotheque Scientifique: Paris, 1975 Mandelbrot, B. *Proc. Natl. Acad. Sci. USA* **1975**, 72, 3825 Mandelbrot, B. *Compt. Rend. Ser. A-B* **1976**, 282, A119

		Mandelbrot, B. *Lecture Notes in Mathematics* **1976**, 565, 121 - 145 Mandelbrot, B. *Fractals: form, chance, and dimension*, W.H. Freeman, 1977 Mandelbrot, B. *Bull. Inst. Math. Appl.* **1977**, 13, 189
mantissa and characteristic of logarithm (Briggs)	1624	Briggs,H. *Arithmetica logarithmica, sive logarithmorum chiliades triginta*, London, 1624
Markov chains, Markov processes	1906	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
mathematical induction term (de Morgan)	1838	De Morgan, A. *An Essay on Probabilities and on their Application to Life Contingencies and Insurance Offices*, London, 1838 De Morgan, A. *First Notions of Logic, Preparatory to the Study of Geometry*, London, 1839
Mathieu functions Mathieu equation	1868	Mathieu, E.L. *Journal de Math.* **1868**, 13, 137 Mathieu, E.L. *Compt. Rend. Acad. Sci.* **1868**, 66, 530
matrix name (Sylvester)	1850	Sylvester, J.J. *On a New Class of Theorems*, 1850 Sylvester, J.J. *Collected Mathematical Papers, Vol. 1 – 4*, Cambridge, 1904 – 1911 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Maxwell's equations for electromagnetism	1865	Maxwell, J.C., *Phil. Trans*. **1865**, 155, 459 Maxwell, J.C., *Treatise on Electricity and Magnetism*, Oxford Clarendon Press: Oxford: 1892
Mellin transforms	1896	Mellin, H. *Acta Soc. Sci. Fennicae* **1896**, 21, 1 Mellin, H. *Acta Math.* **1902**, 25, 139 Mellin, H. *Acta Math.* **1902**, 25, 165
Menelaus' theorem	100	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Mercator projection	1569	
Mersenne numbers, primes	1644	
method of least squares (Legendre)	1810	Legendre, A.M. *Memoires de l'Institut National des Sciences et Arts*, **1810**, Part 2, 149
minimization of areas problem solution (Besicovitch)	1925	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Minkowski inequality	1896	Minkowski, H. *Geometrie der Zahlen*, Teubner: Leipzig, 1896

Mobius function	1831	Mobius, *Uber eine besondere Art von Umkehrung der Reihen*, 1831 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Mobius inversion formula	1832	Mobius, *J. reine angew. Math.* **1832**, 9, 105
Möbius strip	1858/1863	Mobius, A.F. *Ber. Verhandl. Konigl. Sachs. Ges. Wissen. Math.-phys. Klasse*, **1863**, 15, 18 - 57 (reprinted in Klein, F. *August Ferdinand Mobius Gesammelte Werke*, Vol. 2, S. Hirzel: Leipzig, 1886, pp. 433 - 472) Mobius, A.F. *Ber. Verhandl. Konigl. Sachs. Ges. Wissen. Math.-phys. Klasse*, **1865**, 17, 31 - 68 (reprinted in Klein, F. *August Ferdinand Mobius Gesammelte Werke*, Vol. 2, S. Hirzel: Leipzig, 1886, pp. 473 - 512) Klein, F. *August Ferdinand Mobius Gesammelte Werke*, Vol. 2, S. Hirzel: Leipzig, 1886, pp. 519 - 559 Listing, J.B. *Vorstuden zur Topologie*, Göttingen, 1847 Listing, J.B. *Abh. K. Ges. Wiss. Goettingen Math. Cl.* **1861 - 1862**, 10, 97
modular arithmetic (Gauss)	?	Gauss, C.F. *Werke*, 12 vol., Göttingen, 1870 – 1927
Monte Carlo methods (J. von Neumann; Ulam, Stanislav)	1930	Ulam, S. *Fund. Math.* **1930**, 15, 140 Von Neumann, J. *Math. Zeitschr.* **1927**, 26, 1 Von Neumann, J. *Math. Ann.* **1928**, 100, 295 Von Neumann, J.; Morgenstern, O. *Theory of Games and Economic Behavior*, Princeton University Press: Princeton, NJ, 1944
n-dimensional geometry (Grassmann)	1844	Grassmann, H.G. *J. reine angew. Math.* **1848**, 36, 177 Grassmann, H.G. *J. reine angew. Math.* **1852**, 42, 187 Grassmann, H.G. *J. reine angew. Math.* **1852**, 44, 1 Grassmann, H.G. *J. reine angew. Math.* **1855**, 49, 21 Grassmann, H.G. *J. reine angew. Math.* **1855**, 49, 1 Grassmann, H.G. *J. reine angew. Math.* **1856**, 52, 254 Grassmann, H.G. *Die lineale Ausdehnundslehre, ein neuer Zweig der Mathematik*, 1844 Grassmann, H.G. (F. Engel, ed.) *Mathematische und physikalische Werke*, 3 vols., Leipzig, 1894 - 1911

Napier (natural) logarithms	1614	Napier, J. *Mirifici logarithmorum canonis descriptio*, Lyon, 1619
Napier's rules	1614	Napier, J. *Mirifici logarithmorum canonis descriptio*, Lyon, 1619
Napierian base	1614	Napier, J. *Mirifici logarithmorum canonis descriptio*, Lyon, 1619
natural numbers (Peono)	1889	Peono, G. *Arithmeticas principia, novo methodo exposita*, Torino, 1889
Navier-Stokes equations	1827	Navier, L. *Mem. Acad. Sci.* **1827**, 7, 375 Stokes, G.G. *Trans. Cambr. Phil. Soc.* **1843**, 8, 287
negative numbers (Chinese mathematicians)	-200	
Newton calculus	1704	Newton, I. *The Mathematical Papers of Isaac Newton*, Cambridge University Press: Cambridge, 1967 – 1981, Vol. 1, 245 Newton, I. *The Mathematical Papers of Isaac Newton*, Cambridge University Press: Cambridge, 1967 – 1981, Vol. 3, 32
Newton-Raphson Method	?	
non-parametric tests: signed rank test, rank sum test (Wilcoxon, F.)	1945	Wilcoxon, F. *Biometrics* **1945**, 1, 80 Wilcoxon, F. *J. Econ. Entom.* **1946**, 89, 269 Litchfield, J.T. Jr.; Wilcoxon, F. *Anal. Chem.* **1955**, 27, 299
notation of correlation (Galton)	1888	Galton, F. *Hereditary Genius*, Macmillan: London, 1869 Galton, F. *Proc. Roy. Inst. Gr. Brit.* **1877**, 8, 282 Galton, F. *J. Anthropol. Inst.* **1885**, 15, 246 Galton, F. *Proc. Roy. Soc. London* **1886**, 40, 42 Galton, F. *Proc. Roy. Soc. London* **1888**, 45, 135
number zero (Brahmagupta)	628	Brahmagupta *Brahma-sphuta-siddhanta*, 628 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
p-adic numbers (Hensel)	1897	Hensel, K. *Nachr. Göttingen* **1897**, 297
Parseval theorem	1799	
partial derivative notation (Lagrange)	1788	Lagrange, J. *Mecanique Analytique*, 1788 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Pascal law of pressure	1654	Pascal, B. *Treatise on the Equilibrium of Liquids*, 1654 Pascal, B. *Traite du triangle arithmetique, avec quelquess autres petits traites sur la meme manieres*, 1654 Pascal, B. *Oeuvres*, 14 vol., Hachette: Paris, 1904 – 1914

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Pascal's binomial theorem (Newton)	1665	Newton, I. *The Mathematical Papers of Isaac Newton*, Cambridge University Press: Cambridge, 1967 – 1981, Vol. 1, 492 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Pascal's theorem (geometry)	1639	Pascal, B. *Oeuvres*, 14 vol., Hachette: Paris, 1904 - 1914
Pascal's triangle	1653	Pascal, B. *Traite du triangle arithmetique, avec quelquess autres petits traites sur la meme manieres*, 1654 Pascal, B. *Oeuvres*, 14 vol., Hachette: Paris, 1904 - 1914
Pell number sequence	1650	
Pell's equation	1650	
Penrose tiles	?	
Penrose tribar	1958	Penrose, L.S.; Penrose, R. *Brit. J. Psychology* **1958**, 49, 31
Peono axioms	1889	Peono, G. *Arithmeticas principia, novo methodo exposita*, Torino, 1889
Peono curve	1890	Peono, G. *Math. Ann.* **1890**, 37, 182
Petersen graph	1898	Petersen, J.P.C. *L'Intermediaire des Mathematiciens* **1898**, 5, 225
Pfaffian forms	1815	Pfaff, J.F. *Abh. Preussischen Akad. Wiss.* **1814 – 1815**, 76 Kowalewski, G. (trans.) *Ostwald's Klassiker der exakten Wissen. No. 129*, Leipzig, 1902 Jacob, C. *J. reine angew. Math.* **1827**, 2, 347
pi is transcendental (von Lindemann, Ferdinand)	1882	Lindemann, C. *Math. Ann.* **1882**, 20, 213
Picard big theorem	1878	Picard, C.E. *Compt. Rend.* **1878**, 87, 430; 743
Picard little theorem	1880	Picard, C.E. *Ann. Scientifiques de l'Ecole Normale Superieure*, **1880**, 9[2], 145
Plateau problems of minimal surfaces	1873	Plateau, J. *Statique experimentale et theorique des liquides soumis aux seules forces moleculaires*, 2 vols., Ghent-Paris, 1873 Henry, J. (transl.) *Annual Report of the Board of Regents of the Smithsonian Institution* **1863**, 207; **1864**, 285; **1865**, 411; **1866**, 255
Platonic solids	?	
Poincare conjecture	1904	Poincare, H. *Palermo Rend.* **1904**, 18, 45 Poincare, H. *Oeuvres* **1904**, 6, 435
Poincaré theorem	1895	Poincare, H. *J. Ecole Polytechnique* **1895**, 1[2], 1

		Poincare, H. *Oeuvres* **1895**, 6, 193
Poisson distribution	1837	Poisson, S. *Recherches sur la probabilite des jugements en matiere criminelle et en matiere civile*, Paris, 1837
Poisson equation	1837	Poisson, S. *Recherches sur la probabilite des jugements en matiere criminelle et en matiere civile*, Paris, 1837
Poisson ratio	1837	Poisson, S. *Recherches sur la probabilite des jugements en matiere criminelle et en matiere civile*, Paris, 1837
polar co-ordinates (Bernoulli, Jakob)	1691	Bernoulli, Jakob *Acta Eruditorum* **1692**, 11, 207 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Polya's theorem	1935	Polya, G. *Compt. Rend.* **1935**, 201, 1167 Polya, G. *Z. Kristal.* **1936**, 93A, 415 Polya, G. *Acta Math.* **1937**, 68, 145
predicate logic (Gottlob, Frege)	1879	
principle of contradiction (Aristotle)	?	Ross, W.D. *The Works of Aristotle*, Oxford, 1928
principle of duality	?	
principle of excluded middle (Aristotle)	?	Ross, W.D. *The Works of Aristotle*, Oxford, 1928
principle of identity (Aristotle)	?	Ross, W.D. *The Works of Aristotle*, Oxford, 1928
principle of syllogisms (chain rule of inference) (de Morgan)	1858	De Morgan, A. *Trans. Cambr. Phil. Soc.* **1849**, 8, 379 De Morgan, A. *Trans. Cambr. Phil. Soc.* **1856**, 9, 79 De Morgan, A. *Trans. Cambr. Phil. Soc.* **1858**, 10, 173; 331; 428
probability theory (de Morgan)	1838	De Morgan, *Trans. Cambr. Phil. Soc.* **1838**, 6, 423
probability theory (Kolmogorov)	1933	Kolmogorov, A.N. *Giorn. Ist. Ital. Attuari* **1933**, 4, 83 Kolmogorov, A.N. *Uch. Zap. Moskov. Gos. Univ.* **1933**, 1, 9 Kolmogorov, A.N. *Zh. Geofiz.* **1933**, 78 Kolmogorov, A.N. *Grundbegriffe der Wahrscheinlichkeitsrechnung*, Springer: Berlin, 1933, Chapter 2.
probability theory (Laplace)	1812	Laplace, P.S. *Theorie Analytique des Probabilites*, 1812 Laplace, P.S. *Oeuvres,* 14 vol., Gauthier-Villars: Paris, 1878 – 1912 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
probit analysis (Bliss, Chester)	1935	Bliss, C.I. *Science* **1934**, 79, 38; 409 Bliss, C.I. *Ann. Appl. Biol.* **1935**, 22, 134; 307

		Bliss, C.I. *Quart. J. Pharmacy Pharmacol.* **1938**, 11, 192 Bliss, C.I. *J. Am. Pharmaceut. Assoc.* **1940**, 29, 465 Finney, D.J. *Probit Analysis*, 3rd ed. Cambridge University Press: Cambridge, 1971
product symbol (Descartes)	1637	Descartes, R. *La Geometrie*, 1637
projective geometry (Ptolemy/Desargues)	1639	Desargues, G. *Oeuvres,* Leiber: Paris, 1864
proof by induction (de Morgan)	1838	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
proof by reducio ad absurdum (Euclid, Pythagoras)	?	Euclid, *Elementa*, 5 vol., (J.L. Heiberg, ed.), Teubner: Leipzig, 1883 – 1888 *Stoicheion (The Elements)*
proof of Bertrand's conjecture (Chebyshev)	1850	Tchebyshef, P. *On Primary Numbers*, 1850 Tchebychef, T. (A.A. Markov, N.Y. Sonin, eds.) *Oeuvres*, 2 vols., St. Petersburg, 1899 - 1907
proof of Fermat's conjecture (Gauss)	1801	Gauss, C.F. *Werke*, 12 vol., Göttingen, 1870 – 1927
proof of general ergodic theorem (Birkhoff)	1931	Birkhoff, G.D. *Proc. Natl. Acad. Sci. USA* **1931**, 17, 650 Von Neumann, J. *Proc. Natl. Acad. Sci. USA* **1932**, 18, 70
proof of Jordan theorem (Veblen)	1905	Veblen, O. *Trans. Am. Math. Soc.* **1904**, 5, 343 Veblen, O. *Analysis situs* in Colloquium Publications of the American Mathematical Society, **1922**, 5, part 2
proof of minimax theorem (Neumann)	1928	Von Neumann, J. *Math. Ann.* **1928**, 100, 295 Von Neumann, J.; Morgenstern, O. *Theory of Games and Economic Behavior*, Princeton University Press: Princeton, NJ, 1944
proof that pi is irrational (Lambert)	1768	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
proof that polynomials of degree > 4 cannot be solved by radicals (Abel)	1824	Abel, N.H. *Oeuvres,* 2 vol., (Sylow; Lie, eds.), Christiania, 1881
Ptolemy's theorem	150	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Pythagorean theorem (Babylonians)	-1850	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Pythagorean triples	?	
Ramanujan sums	1917	Ramanujan, S.A. (G.H. Hardy, P.V.S. Aiyar, B.M. Wilson, eds.) *Collected Papers*

		of S.A. Ramanujan, Cambridge, 1927
remainder theorem (Bezout, Etienne)	1779	Bezout, E. *Theorie generale des equations algebriques*, Paris, 1779
Reynolds number	1883	Reynolds, O. *Phil. Trans.* **1883**, 174, 935 Reynolds, O. *Phil. Trans.* **1886**, 177, 157
rhombic dodecahedron (Hauy, Rene Just)	1784	Hauy, R. *Essai d'une theorie sur la structure des cristaux appliquee a plusieurs genres, de substances cristallines,* 1784
Riccati differential equation	1724	Riccati, J.F. *Opera del conte Jacopo Riccati*, 4 vols., Lucca, 1761 - 1765
Riemann definite integral	1854	Riemann, G.F.B. *Werke*, **1854**, 272
Riemann geometry	1854	Riemann, G.F.B. *Werke*, **1854**, 272
Riemann hypothesis	1859	Riemann, G.F.B. *Werke*, **1859**, 145
Riemann integrability condition	1854	Riemann, G.F.B. *Werke*, **1854**, 272
Riemann sums	1854	Riemann, G.F.B. *Werke*, **1854**, 272
Riemann surfaces	1851	Riemann, G.F.B. *Werke*, **1851**, 3
Riemann zeta function	1859	Riemann, G.F.B. *Werke*, **1859**, 145
Riesz means (Riesz, Marcel)	1909	Riesz, M. *Compt. Rend.* **1909**, 149, 18; 909 Riesz, M. *Acta Szeged Sect. Math.* **1923**, 1, 104
Riesz-Fischer theorem	1907	Riesz, F. *Nachrichten Göttingen* **1907**, 116 Fischer, E. *Compt. Rend.* **1907**, CXLIV, 1022
Rodrigues formula	1816	Rodrigues, B.O. *Corresp. Ecole Polytechnique* **1816**, 3, 361
Rolle's theorem	1691	Rolle, M. *Traite d'algebre, ou principles generaux pour rensoudre les questions de mathematiques*, Paris, 1690
rules of differentiation (Leibniz)	1677	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Runge-Kutta method	1901	Runge, C. *Math. Ann.* **1895**, 46, 167 Runge, C. *Nachr. Ges. Wiss. Gottingen, Math.-Phys. Klasse*, **1905**, 252 Kutta, W. *Z. Math. Phys.* **1901**, 46, 435
Russell's paradox	1901	Russell, B. *Introduction to Mathematical Philosophy*, 1919 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Sarrus's rule for 3rd-order determinants	?	
series expansion of log(1 + x) (Mercator, N.)	1651	Mercator, N. *Trigonometrica sphaericorum logarithmica, cosmographia,* 1651 Mercator, N. *Astronomica sphaerica*, 1651 Mercator, N. *Logarithmotechnia cui nunc accedit vera quadratura hyperbolae*,

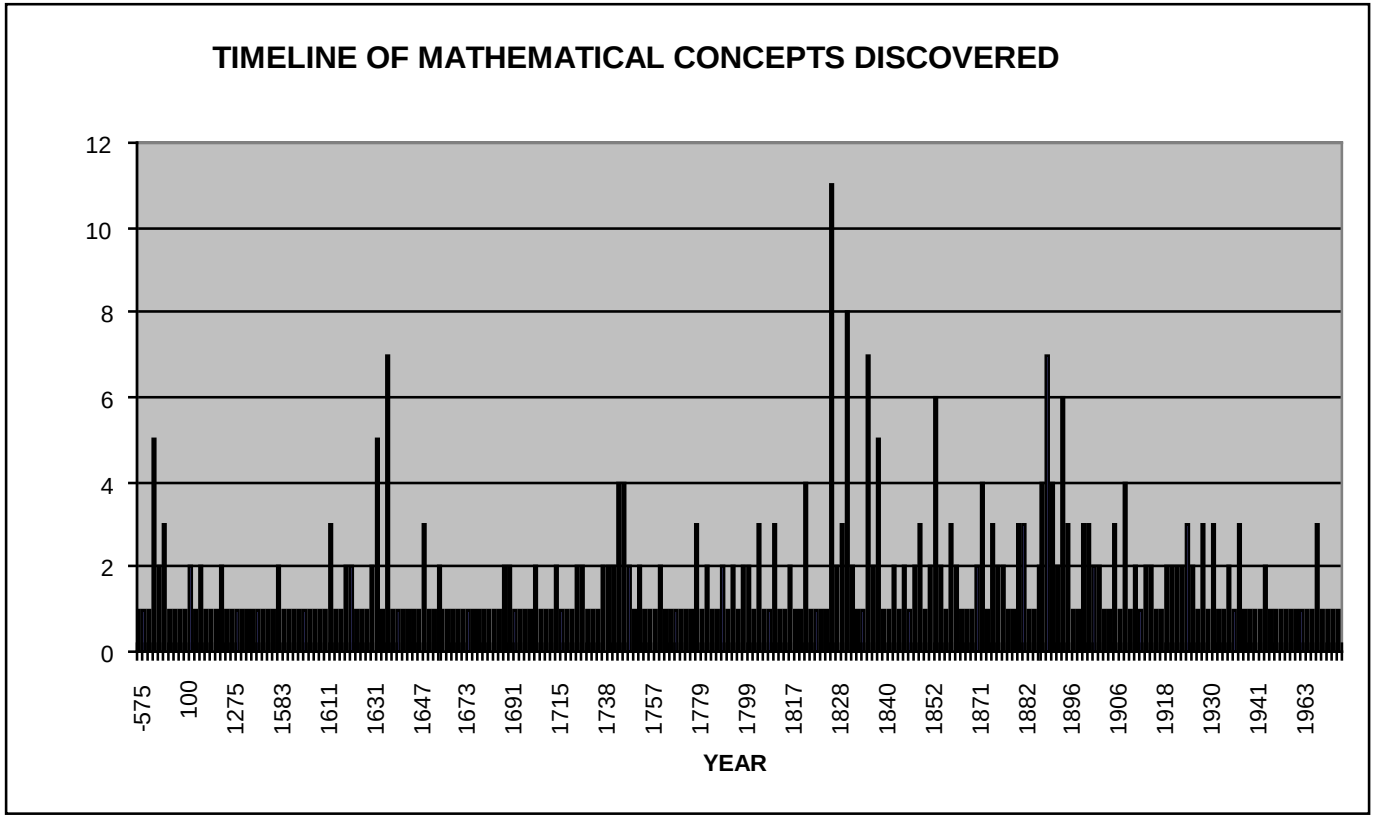
		London, 1668 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
series expansion of pi/4 (Gregory, J.)	1671	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html Whiteside, D.T. in *Dictionary of Scientific Biography*, Gillispie, Charles Coulston (ed.), Charles Scribners & Sons: New York, 1980, Vol. 5, pp. 524 - 530
set symbol (Peono)	1889	Peono, G. *Arithmeticas principia, novo methodo exposita*, Torino, 1889
seven axioms of Zermelo	1908	Zermelo, E. *Math. Ann.* **1908**, 65, 107; 261
Shannon-Jaynes maximum entropy function	1957	Shannon, C.E. *Bell System Tech. J.* **1948**, 27, 379; 623 Shannon, C.E.; Weaver, W. *The Mathematical Theory of Communication*, University of Illinois Press: Urbana, 1949. Jaynes, E.T. *Phys. Rev.* **1957**, 106, 620 Jaynes, E.T. *Phys. Rev.* **1957**, 108, 171
Sierpinski carpet	?	
Sierpinski sponge	?	
Sierpinski triangle	?	
simplex method of optimization (Dantzig, G.)	1951	Dantzig, G. *Maximization of a linear function of variables subject to linear inequalities*, in Activity Analysis of Production and Allocation, Cowles Commission Monograph No. 13, Wiley: NY, 1951, pp. 339 – 347 Dantzig, G. *Application of the simplex method to a transportation problem*, in Activity Analysis of Production and Allocation, Cowles Commission Monograph No. 13, Wiley: NY, 1951, pp. 359 – 373 Dantzig, G. *IBM J. Res. Develop.* **1960**, 4, 505
Simpson's rule	1750	
sin, cos, tan names (Girard)	1626	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Skew distributions (Pearson, K.)	1895	Pearson, K. *Phil. Trans. Roy. Soc. A* **1895**, 186A, 343 Pearson, K. *Biometrika* **1921**, 13, 296 Pearson, K. *Biometrika* **1923**, 15, 222; 231
slide rule (Oughtred, William; Gunter, Edmund)	1621	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
solid geometry (Archimedes)	-250	*Archimedis Opera Omnia*, 3 vol., (J.L. Heiberg, ed.), Teubner: Leipzig, 1913 – 5

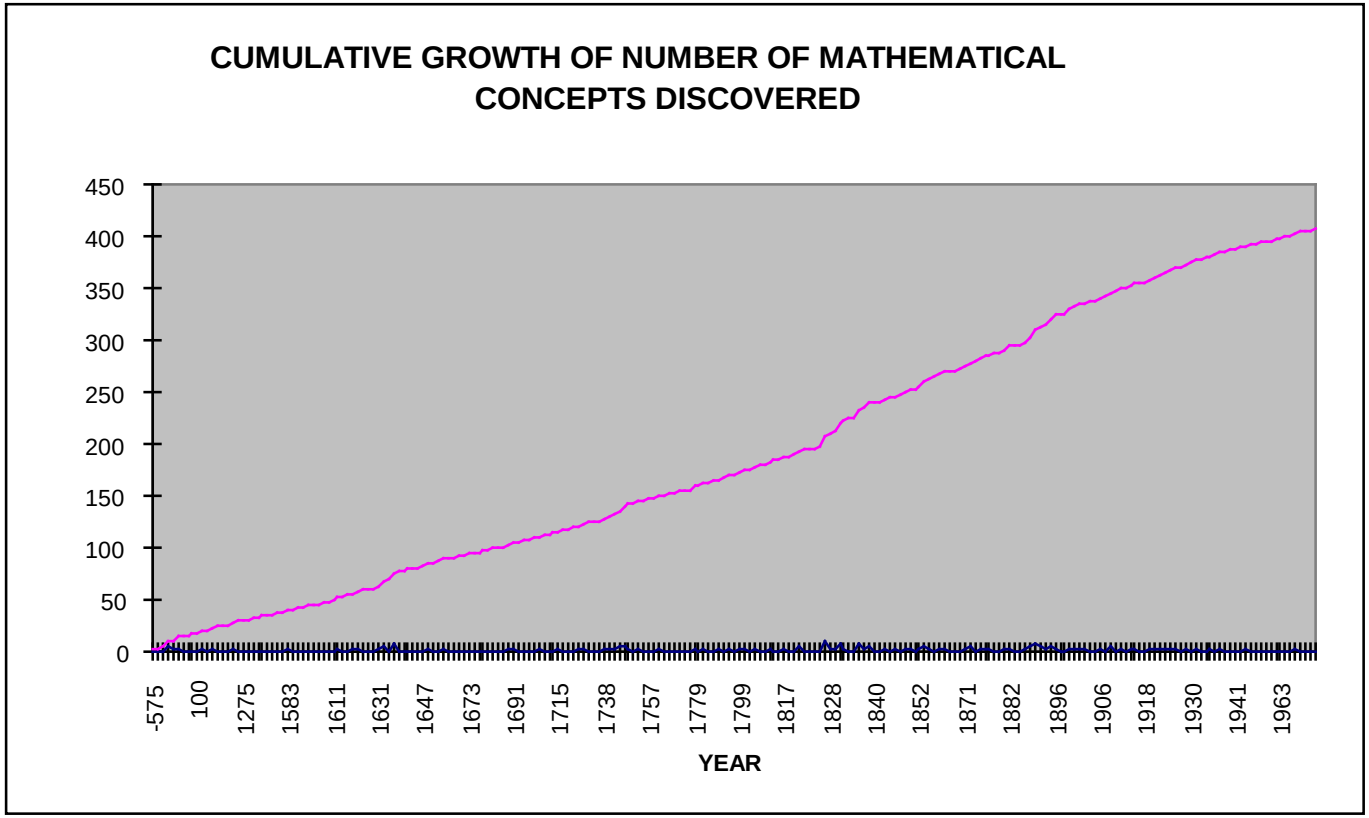
		Les Oeuvres completes d'Archimede, transl. P. Ver Ecke, Paris, 1921
stability criteria for sets ode's (Lyapunov)	1899	Lyapunov, A.M. *The General Problem of the Stability of Motion*, Ph.D. thesis, St. Petersburg, 1899; *Annales de la Faculte des sciences de l'Universitie de Toulouse, 2nd ser.* **1907**, 9, 203; *Annals of Mathematics No. 17*, Princeton, 1947
standard deviation (Pearson, Karl)	1894	Pearson, K. *Phil. Trans. Roy. Soc. A* **1894**, 185, 71
Stieltjes integral	?	
Stirling's formula (de Moivre)	1730	De Moivre, A. *Miscellanea Analytica,* London, 1730
student t-test (Gosset)	1908	"Student" *Biometrika* **1908 - 1909**, 6, 1; 302 Fisher, R.A. *Biometrika* **1914 - 1915**, 10, 507
Sturm-Liouville theory	1837	Liouville, J. *Journ. De Math.* **1836**, 1, 253; 269 Liouville, J. *Journ. De Math.* **1837**, 2, 16; 418 Sturm, C. *Journ. De Math.* **1836**, 1, 106; 373
summation symbol (Euler)	?	Euler, L. *Opera Omnia*, 46 vol., Teubner and O. Fussli: Leipzig, 1911 - 1957
supply and demand functions (Cournot)	1838	Cournot, A. *Recherches sur les principes mathematiques de la theorie des richesses*, Paris, 1838 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
surfaces and volumes of solids of revolution (Pappus)	340	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Sylow theorems	1872	Sylow, L.. *Math. Ann.* **1872**, 5, 584
Sylvester's theorem	1877	Sylvester, J.J. (H.F. Baker, ed.) *Collected Mathematical Papers, Vol. 1 – 4*, Cambridge, 1904 - 1912
symbol dy/dx for derivatives (Lagrange)	1797	Lagrange, J.L.. *Oeuvres*, 14 vol., Gauthier-Villars: Paris, 1867 - 1892
symbol e for natural log base (Euler)	1727	Euler, L. *Opera Omnia*, 46 vol., Teubner and O. Fussli: Leipzig, 1911 – 1957 Euler, L. *Mediation upon Experiments made recently on firing of Cannon*, 1727 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
symbol for addition and subtraction (Widman)	1489	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
symbol for division (Rahn, Johann H.)	1659	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
symbol for equals sign (Recorde)	1557	*The Whetstone of Witte* Index of Biographies, University of St. Andrews, Mathematical Chronology

		http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
symbol for multiplication (Oughtred, William)	1631	Oughtred, W. *Clavis Mathematicae,* 1631 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
symbol for square root (Rudolff)	1525	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
symbol i for imaginary numbers (Euler)	1794	Euler, L. *Opera Omnia*, 46 vol., Teubner and O. Fussli: Leipzig, 1911 – 1957 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
tan, cot, sec, csc names (Fincke, Thomas)	1583	
Taylor series	1715	Taylor, B. *Methodus Incrementorum directa et inversa*, London, 1715
Taylor theorem	1715	Taylor, B. *Methodus Incrementorum directa et inversa*, London, 1715
Thales's theorem	-575	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Theorems of Apollonius	-225	*Conics* Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Theorems of Pappus (Guldin's rules)	340	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
theory of algebraic invariants (Sylvester, Cayley)	1852	Sylvester, J.J. *Collected Mathematical Papers, Vol. 1 – 4*, Cambridge, 1904 - 1911 Cayley, A. *J. Rein. Angew. Math.* **1846**, 30, 1 Sylvester, J.J. *Am. J. Math.* **1878**, 1, 64
theory of fractals (Mandelbrot)	1975	Mandelbrot, B. *Les objets fractals, forn, hasard, et dimension*, 1975
topological invariants (Brouwer)	1911	Brouwer, L.E.J. *Math. Ann.* **1911**, 70, 161 Brouwer, L.E.J. *Math. Ann.* **1912**, 71, 305 Brouwer, L.E.J. *Math. Ann.* **1912**, 72, 55; 422 Brouwer, L.E.J. *J. reine angew. Math.* **1913**, 142, 146
trapezoidal rule	?	
trigonometric solution to cubic equation (Viete)	1600	
trigonometry (Euler, L.)	1748	Euler, L. *Opera Omnia*, 46 vol., Teubner and O. Fussli: Leipzig, 1911 - 1957

trigonometry (Hipparchus of Nicea & Rhodes)	-140	
trigonometry name (Pitiscus, Bartholomaeus)	1595	Pitiscus, B. *Trigonometrica: sive de solutione triangulorum tractatus brevis et perspicuus*, Heidelberg, 1595
Tukey-Cooley algorithm	1965	Cooley, J.W.; Tukey, J.W. *Math. Comput.* **1965**, 19, 297
Turing machine	1936	Turing, A. *Proc. London Math. Soc. Ser. 2* **1936**, 42, 230
Turing theory	1936	Turing, A. *Proc. London Math. Soc. Ser. 2* **1936**, 42, 230
Tutte polynomial	1953	Tutte, W.T. *Can. J. Math.* **1953**, 6, 80
Vandermonde determinant	1771	Vandermonde, A.T. *Hist. Acad. Roy. Sci.* **1771** "Memoire sur la resolution des equations"
Venn diagram	1881	Venn, J. *Symbolic Logic*, London-Cambridge, 1881
Viete infinite formula for pi	1593	Viete, F. *Opera* **1593**, 347 "Variorum de rebus mathematicus responsorum libri octo"
Vinogradov's theorem	1937	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html Vinogradov, B. *Proc. Amer. Math. Soc.* **1950**, 1, 159
Volterra's integral equation	1896	Volterra, V. *Rend. Accad. Lincei* **1896**, 5, 177; 289 Volterra, V. *Ann. Di Mat.* **1897**, 25, 139 Volterra, V. (M. Tomassetti; F.S. Zarlatti, eds.) *Lecons sur les equations integrale et les equations integro-differentialles*, Paris, 1913 Volterra, V. (L. Fantapie, ed.) *Theory of Functionals and of Integral and Integro-Differential Equations*, London-Glasgow, 1930
Wallis formula	1655	Wallis, J. *Arithmetica infinitorum*, 1656 Wallis, J. *Opera* **1655**, 1, 355 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Weibull distribution	1939	Weibull, W. *Ing. Vetenskaps Akad. Handl.* **1939**, 151, 1 Weibull, W. *J. Appl. Mech.* **1951**, 18, 293
Weierstrass approximation theorem	1890	Weierstrass, K. *Mathematische Werke,* 7 vol., Mayer und Mueller: Berlin, 1894 - 1927
Weierstrass inequalities	1890	Weierstrass, K. *Mathematische Werke,* 7 vol., Mayer und Mueller: Berlin, 1894 - 1927
Weierstrass test for convergence	1890	Weierstrass, K. *Mathematische Werke,* 7 vol., Mayer und Mueller: Berlin, 1894 -

		1927
Wenzelides magic square	?	
Wiener integrals	1923	Wiener, N. *J. Math. Phys. MIT* **1923**, 2, 131
Wiles theorem	1995	Wiles, A. *Ann. Math.* **1995**, 141[2], 443
witch of Agnesi	1748	Agnesi, M.G. *Instituzioni analitiche ad uso della giovent italiana*, 1748 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Wronskian	1850	Hoene-Wronski, J. *Introduction a la philosophie des mathematiques* Hoene-Wronski, J. *Resolution generale des equations de tous les degres*, 1812 Dobrzycki, J. in *Dictionary of Scientific Biography*, Gillispie, Charles Coulston (ed.), Charles Scribners & Sons: New York, 1980, Supplement, p. 225 - 6
x, y, z notation for variables (Descartes)	1637	Descartes, R. *La Geometrie*, 1637 Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Zeno's paradox	-450	Index of Biographies, University of St. Andrews, Mathematical Chronology http://www-groups.dcs.st-and.ac.uk/~history/BioIndex.html
Zorn's lemma	1934	Zorn, M. *Bull. Am. Math. Soc.* **1935**, 61, 667

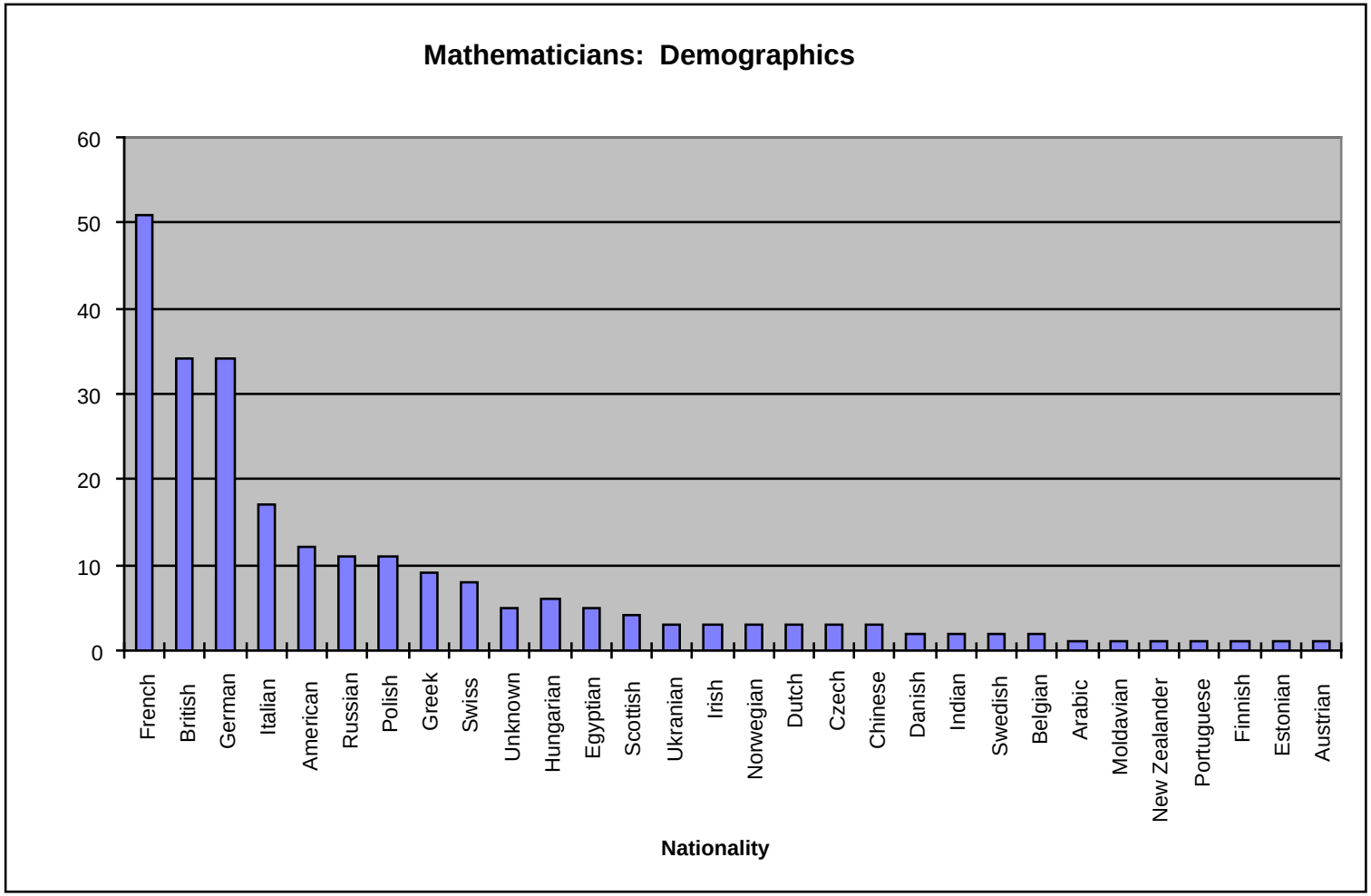

TIMELINE OF MATHEMATICAL CONCEPTS DISCOVERED
12
10
8
6
4
2
0
-575
100
1275
1583
1611
1631
1647
1673
1691
1715
1738
1757
1779
1799
1817
1828
1840
1852
1871
1882
1896
1906
1918
1930
1941
1963
YEAR


CUMULATIVE GROWTH OF NUMBER OF MATHEMATICAL CONCEPTS DISCOVERED
450
400
350
300
250
200
150
100
50
0
-575
100
1275
1583
1611
1631
1647
1673
1691
1715
1738
1757
1779
1799
1817
1828
1840
1852
1871
1882
1896
1906
1918
1930
1941
1963
YEAR

Demographics of Named Mathematicians

Nationality	Number of Mathematicians
French	51
British	35
German	34
Italian	17
American	12
Russian	11
Polish	11
Greek	9
Swiss	8
Unknown	5
Hungarian	6
Egyptian	5
Scottish	4
Ukranian	3
Irish	3
Norwegian	3
Dutch	3
Czech	3
Chinese	3
Belgian	3
Danish	3
Indian	2
Swedish	2
Arabic	1
Moldavian	1
New Zealander	1
Portuguese	1

Finnish	1
Estonian	1
Austrian	1
	243



Genealogies of Mathematicians

NAME	YEARS	BIRTHPLACE	DEGREE	LOCATION	MENTOR/ADVISOR
Abel, Niels Hendrik	05.08.1802 - 06.04.1829	Finnoy, Norway	1822	CATHEDRAL SCHOOL CHRISTIANIA; BERLIN	Holmboe, Bernt M.; Crelle, August L.
Agnesi, Maria Gaetana	16.05.1718 - 01.01.1799	Milan, Italy	n/a	no degree	Rampinelli, Ramiro (monk); Riccati, V.
Airy, Sir George Biddell	27.07.1801 - 04.01.1892	Alnwick, England	1823	CAMBRIDGE	?
al-Khwarizmi, Ja'far	c780 - c850	Baghdad, Iraq	no degree	no degree	?
Alexander, James Waddell II	19.09.1888 - 23.09.1971	Sea Bright, NJ, USA	1915	PRINCETON (PHD)	Gronwall,T.H.
Alexandrov, Pavel Sergeevitch	07.03.1896 - 16.11.1982	Bogorodsk, Russia	1913+	MOSCOW; GOETTINGEN; BONN; BLARICUM	Luzin, N.N.; Noether, E.; Hausdorff, F.; Brouwer, L.
Apollonius of Pergia	250 BC - 220 BC	?	no degree	no degree	?
Arbogast, Louis	04.10.1759 - 18.04.1803	Mutzig, France	1794	ECOLE CENTRALE (prof.)	?
Archimedes	287 BC - 212 BC	Syracuse, Greece	no degree	no degree	?
Argand, Jean Robert	18.07.1768 - 13.08.1822	Geneva, Switzerland	no degree	no degree	Legendre, A.M.
Aristotles	384 BC - 322 BC	Stagirus, Macedonia, Greece	?	Plato's Academy, Athens	?
Artin, Emil	03.03.1898 - 20.12.1962	Vienna, Austria	1921	LEIPZIG	Herglotz, Gustav; Hölder, Otto
Banach, Stefan	30.03.1892 - 31.08.1945	Cracow, Poland	1920+	JAN KAZIMIERZ, LVOV	Steinhaus, Hugo

Bateman, Harry	29.05.1882 - 21.01.1946	Manchester, England	1913	JOHNS HOPKINS	Morley, Frank
Bayes, Thomas	1701 - 17.04.1761	London, England	no degree	no degree	de Moivre, Abraham
Bernoulli, Daniel	29.01.1700 - 17.03.1782	Groningen, Netherlands	1721	BASEL	Bernoulli, Johann I; Bernoulli, Nikolaus II
Bernoulli, Jakob	27.12.1654 - 16.08.1705	Basel, Switzerland	1676	BASEL (Lic. Theol.)	Hudde, Johann van Waveren; Hooke, R.; Boyle, R.
Bernstein, Sergi N.	05.03.1880 - 26.10.1968	Odessa, Ukraine	1904, 1913	SORBONNE; KHARKOV	Picard, E.
Besicovitch, Abram	24.01.1891 - 02.11.1970	Berdyansk, Russia	1912	ST. PETERSBURG	Markov, A.
Bessel, Friedrich Wilhelm	22.07.1784 - 17.03.1846	Minden, Germany	1810	GOETTINGEN	Gauss, C.
Betti, Enrico	21.10.1823 - 11.08.1892	Pistoia, Tuscany	1846	PISA	Ottaviano F. Mossotti
Bezout, Etienne	31.03.1730 - 27.09.1783	Nemours, France	no degree	no degree	Euler, Leonhard
Bieberbach, Ludwig	04.12.1886 - 01.09.1982	Goddelan, Germany	1910	GOETTINGEN	Klein, F.; Koebe, P.
Binet, Jacques Phillippe Marie	02.02.1786 - 12.05.1856	France	1806	ECOLE POLYTECHNIQUE	?
Birkhoff, George David	21.03.1884 - 12.11.1944	Overisel, Michigan, USA	1907	CHICAGO (PHD)	Moore, E.H.
Bliss, Chester Ittner	01.02.1899 - 1979	Springfield, Ohio, USA	1926	COLUMBIA	Morgan, Thomas Hunt (Physiology & Medicine Nobel 1933)
Bohr, Harald A.	22.04.1887 - 22.01.1951	Copenhagen, Denmark	1910	COPENHAGEN	Landau, Edmund
Boole, George	02.11.1815 - 12.08.1864	Lincoln, England	no degree	no degree	Newton, I.; Lagrange, J.
Borel, Felix E.J. Emile	07.01.1871 - 03.02.1956	Saint-Affrique, France	1895	ECOLE NORMALE (PHD)	Darboux, Jean-Gaston

Bouguer, Pierre	16.02.1698 - 15.08.1758	Le Croisic, France	1735	Academie Roy. Sciences (no degree)	
Box, George E.P.	18.10.1919 -	Gravesend, England	1952	UC LONDON	Pearson, E.P.; Hartley, Herrmann
Brahmagupta	598 - 670	Ujjain (?), India	no degree	no degree	?
Brianchon, Charles Julien	19.12.1783 - 29.04.1864	Sevres, France	1808	ECOLE POLYTECHNIQUE	Monge, Gaston
Briggs, Henry	02.1561 - 26.01.1630	Warley Wood, Halifax, England	1581	CAMBRIDGE	Napier, John
Brouwer, Luitzen Egbertus Jan	27.02.1881 - 02.12.1966	Overschie, Netherlands	1907	AMSTERDAM (PHD)	Korteweg, Diedrik J.
Buffon, George Louis Leclerc Comte de	07.09.1707 - 16.04.1788	Montbard, France	no degree	no degree	?
Cantelli, Francesco Paolo	20.12.1875 - 21.07.1966	Palermo, Italy	1930?	PALERMO	?
Cantor, Georg Ferdinand L.P.	03.03.1845 - 06.01.1918	St. Petersburg, Russia	1867	GOETTINGEN (PHD)	Dedekind, J.
Cardano, Girolamo	24.09.1501 - 21.09.1576	Pavia, Italy	1525	PADUA (MD)	?
Cartan, Elie Joseph	09.04.1869 - 06.05.1951	Dolomieu, France	1890+	ECOLE NORMALE	Poincare, H.
Cassini, Giovanni P.	08.06.1625 - 14.09.1712	Perinaldo, Italy	no degree	no degree	Malvasia, Marquis Cornelio
Cataldi, Pietro A.	15.04.1548 - 11.02.1626	Bologna, Italy	no degree	no degree	?
Cauchy, Augustin-Louis	21.08.1789 - 23.05.1857	Paris, France	1810	ECOLE PONTS & CHAUSSEES	Laplace, P.; Lagrange, J.
Cavalieri, Francesco Bonaventura	1598 - 03.12.1647	Milan, Italy	1916	JESUATI MONASTERY PISA	Castelli, Benedetto
Cayley, Arthur	16.08.1821 - 26.01.1895	Richmond-on-Thames, England	1885	CAMBRIDGE	Hopkins, William
Ceva, Giovanni	07.12.1647 - 15.06.1734	Milan, Italy	1686	PISA (prof.)	?

Chebyshev, Pafnuty Lvovich	14.05.1821 - 26.11.1894	Borovsk, Russia	1847	ST. PETERSBURG (PHD); BERLIN; LONDON; PARIS	Dirichlet, G.; Cayley, A.; Sylvester, J.; Liouville, J.
Chhi-shou, Pao	?	?	?	?	?
Chiu-Shao, Ch'in	1202 - 1261	Sichuan, China	no degree	no degree	?
Clifford, William Kingdon	04.05.1845 - 03.03.1879	Exeter, England	1867	CAMBRIDGE	Lobachevsky, N.I.; Riemann, G.
Cooley, James William	18.09.1926 -	New York City, NY, USA	1961	COLUMBIA	?
Courant, Richard	17.02.1887 - 27.01.1972	Lublinitz, Upper Silesia	1912+	GOETTINGEN (PHD)	Hilbert, David
Cournot, Antoine	28.08.1801 - 31.03.1877	Gray, France	1829	SORBONNE	Lacroix, S.F.; Hachette, J.; Poisson, S.
Cox, Sir David Roxbee	15.07.1924 -	Birmingham, England	1949	LEEDS	Daniels, Henry; Welch, Bernard
Coxeter, Harold S.M.	09.02.1907 – 31.03.2003	London, England	1931	CAMBRIDGE PRINCETON	Baker, Henry F. Veblen, O.
Cramer, Gabriel	31.07.1704 - 04.01.1752	Geneva, Switzerland	1722	GENEVA; BASEL	Bernoulli's; Euler, L.
D'Alembert, Jean-le-Rond	17.11.1717 - 29.10.1783	Paris, France	1735	COLL. QUATRE NATIONS (BA)	?
Dantzig, George	08.11.1914 -	Portland, Oregon, USA	1946	UC BERKELEY	Neyman, Jerzy
de Moivre, Abraham	26.05.1667 - 27.11.1754	Vitry-le-Francois, France	1684+	PARIS	Ozanam, Jacques
de Morgan, Augustus	27.06.1806 - 18.03.1871	Madura, India	1826	CAMBRIDGE (BA)	Peacock, George; Whewell, William
Dedekind, Julius Wilhelm Richard	05.10.1831 - 12.02.1916	Brunswick, Germany	1852	GOETTINGEN (PHD)	Gauss, Carl
Denjoy, Arnaud	05.01.1884 - 21.01.1974	Auch, France	1909	ECOLE NORMALE	Borel, E.; Picard, E.
Desargues, Girard	02.03.1591 -	Lyons, France	1630s	LYONS; PARIS	Mersennes, Marin

	10.1661				
Descartes, René	31.03.1596 - 11.02.1650	la-Haye-Descartes, France	no degree	no degree	?
Diophantus of Alexandria	250 fl.	Alexandria, Egypt	no degree	no degree	?
Dirichlet, Gustav Peter	13.02.1805 - 05.05.1859	Duren, Germany	1825	BRESLAU (P.DOZ.)	Gauss, Carl
Eratosthenes	276 BC - 194 BC	Cyrene, Greece	no degree	no degree	?
Euclid	300 BC	?	no degree	no degree	?
Euler, Leonhard	15.04.1707 - 18.09.1783	Basel, Switzerland	1724	BASEL (MA)	Bernoulli, Johann
Faulhaber, Johann	05.05.1580 - 1635	Ulm, Germany	n/a	no degree (weaver)	Kepler, J. (collaborator)
Feisthamel	?	?	no degree	no degree	?
Fejer, Lipot	09.02.1880 - 15.10.1959	Pecs, Hungary	1902	EOTVOS UNIV. BUDAPEST	Schwarz, Hermann
Fermat, Pierre de	17.08.1601 - 12.01.1665	Beaumont de Lomagne, France	1631	ORLEANS (civil law)	Pascal, B.; Viete, Francois
Ferrari, Lodovico	02.02.1522 - 05.10.1565	Bologna, Italy	no degree	no degree	Cardano, Girolamo
Fibonacci, Leonardo Pisano	1170 - 1250	Pisa, Italy	no degree	no degree	?
Fincke, Thomas	06.01.1561 - 24.04.1656	Fleusburg, Germany	1587?	BASEL (MD)	?
Fischer, Ernst S.	12.07.1875 - 14.11.1954	Vienna, Austria	1899	VIENNA; ZURICH; GOETTINGEN	Mertens, Franz; Gegenbauer, Leopold; Minkowski, H.
Fisher, Sir Ronald A.	17.02.1890 - 29.07.1962	London, England	1912 1926 (D.Sc.)	CAMBRIDGE (astronomy)	Sir James Jeans; Stratton, F.
FitzGerald, George F.	03.08.1851 - 22.02.1901	Dublin, Ireland	1877	TRINITY COLL. DUBLIN	Maxwell, J.C. (influence)
Fourier, Jean-	21.03.1768 -	Auxerre, France	1790s	ECOLE NORMALE	Laplace, P.;

Baptiste Joseph	16.05.1830				Lagrange, J.; Monge, G.
Franklin, Benjamin	17.01.1706 - 17.04.1790	Boston, Mass., USA	no degree	self-educated	?
Frege, Friedrich Ludwig Gottlob	08.11.1848 - 26.07.1925	Wismar, Germany	1873	GOETTINGEN	Abbe, Ernst (Jena)
Galois, Evariste	25.10.1811 - 1832	Bourg-la-Reine, France	1830+	ECOLE NORMALE	Richard, Louis Paul Emile
Galton, Sir Francis	16.02.1822 - 17.01.1911	Sparkbrook, England	no degree	no degree	?
Gauss, Carl Friedrich	30.04.1777 - 23.02.1855	Brunswick, Germany	1799 1804	HELMSTEDT; GOETTINGEN (PHD)	Pfaff, Johann
Gelfond, Aleksandr O.	24.10.1906 - 07.11.1968	St. Petersburg, Russia	1935	MOSCOW STATE	Khinchin, Aleksandr; Stepanov, Vyacheslaw
Germain, Marie-Sophie	01.04.1776 - 27.06.1831	Paris, France	1794+ 1830 (PHD)	ECOLE POLYTECHNIQUE; GOETTINGEN	Gauss, Carl
Gibbs, Josiah Willard	11.02.1839 - 28.04.1903	New Haven, Connecticut, USA	1863	YALE; BERLIN	Helmholtz, Hermann
Girard, Albert	1595 - 08.12.1632	St. Mihiel, France	1617+	LEIDEN	?
Goedel, Kurt	28.04.1906 - 14.01.1976	Bruenn (Brno), Czech Rep.	1929	VIENNA	Hahn, Hans
Goldbach, Christian	18.03.1690 - 20.11.1764	Koenigsberg, Prussia	1700s	KOENIGSBERG	Leibniz (Leipzig); Bernoulli, N. I, de Moivre (London); Bernoulli, N. II (Venice)
Gompertz, Benjamin	05.03.1779 - 14.07.1865	London, England	no degree	no degree	?
Gosset, William S. (known as "Student"	13.06.1876 - 16.10.1937	Canterbury, England	1899	OXFORD	Airy, Sir George B.

in publications)					
Gram, Jörgen Pederson	27.06.1850 - 29.04.1916	Nustrup, Denmark	1871	COPENHAGEN	?
Grassmann, Hermann Guenther	15.04.1809 - 26.09.1877	Stettin (Szczecin), Prussia	1830	BERLIN	?
Green, George	14.07.1793- 31.05.1841	Sneiton, England	1833+	CAMBRIDGE	?
Gregory (Gregorie), James	?.11.1638 - ?.10.1675	Drumoak, Scotland	1661+	ABERDEEN	?
Guldin, Habakkuk (Paul)	12.06.1577 - 03.11.1643	Sankt Gallen, Switzerland	1609	JESUIT COLLEGE, ROME	Clavius, Christopher
Gunter, Edmond	1581 - 10.12.1626	Hertfordshire, England	1603	OXFORD	Briggs, Henry (friend)
Guthrie, Francis	1831 - 1899	?	no degree	no degree	?
Haar, Alfred	11.10.1885 - 16.03.1933	Budapest, Hungary	1909	GOETTINGEN	Hilbert, David
Hachette, Jean-Nicolas P.	06.05.1769 - 16.01.1834	Mezieres, France	1780s	ECOLE ROY. GENIE, MEZIERES	Monge, G.
Hadamard, Jacques-Salomon	08.12.1865 - 17.10.1963	Versailles, France	1890s	PARIS	Hermite, C.
Hajek, Jaroslav	04.02.1926 – 10.06.1974	Podebrady, Bohemia, Czech Republic	1954	CZECH. ACAD. SCI.	?
Hamilton, Sir William Rowan	04.08.1805 - 02.09.1865	Dublin, Ireland	1824+	CAMBRIDGE	?
Hankel, Hermann	14.02.1839 - 29.08.1873	Halle, Germany	1862	BERLIN	Weierstrass, K.; Kronecker, L.
Hardy, Godfrey Harold	07.02.1877 - 01.12.1947	Cranleigh, Surrey, England	1901	CAMBRIDGE	Jordan, C.
Hausdorff, Felix	08.11.1868 - 26.01.1942	Breslau, Prussia	1891	LEIPZIG (PHD)	Bruns, Heinrich; Mayer, Adolph
Hauy, Rene Just	28.02.1743 - 03.06.1822	St. Just, Picardy, France	?	NAVARRE COLL., PARIS	?
Heaviside, Oliver	18.05.1850 -	Camden Town,	no degree	no degree	?

	03.02.1925	London, England			
Heine, Heinrich Eduard	16.03.1821 - 21.10.1881	Berlin, Germany	1842	BERLIN; KOENIGSBERG	Dirichlet, G.; Jacobi, C.
Hensel, Kurt	29.12.1861 - 01.06.1941	Koenigsberg, Prussia	1884	BERLIN	Kronecker, L.; Weierstrass, K.
Hermite, Charles Ferdinand	24.12.1822 - 14.01.1901	Dieuze, France	1847	ECOLE POLYTECHNIQUE	Jacobi, C.; Cauchy, A.
Hesse, Ludwig Otto	22.04.1811 - 04.08.1874	Koenigsberg, Prussia	1840	KOENIGSBERG	Jacobi, C.
Hilbert, David	23.01.1862 - 13.02.1943	Wehlau, East Prussia	1884	KOENIGSBERG (PHD); LEIPZIG; PARIS; BERLIN	Klein, F.; Hermite, C.; Jordan, C.; Poincare, H.; Kronecker, L.
Hipparchus of Nicaea and Rhodes	190 BC - 120 BC	Nicaea (Iznik), Turkey	no degree	no degree	?
Hoelder, Otto Ludwig	22.12.1859 - 29.08.1937	Stuttgart, Germany	1882	TUEBINGEN	Kronecker, L. (Berlin)
Hopf, Heinz	19.11.1894 - 03.06.1971	Graehschen, Poland	1925	BERLIN	Schmidt, Erhard
Horner, William	1786 - 22.09.1837	Bristol, England	no degree	no degree	?
Hui, Yang	1238 - 1298	China	no degree	no degree	?
Jacobi, Carl Gustav Jacob	10.12.1804 - 18.02.1851	Potsdam, Germany	1823	BERLIN (PHD)	Dirichlet, Gustav P.
Jaenisch, Sigbert	?	?	1964	GIESSEN	Gaier, Dieter; Maruhn, Karl
Janiszewski, Zygmunt	12.06.1888 - 03.01.1920	Warsaw, Poland	1911	PARIS	Lebesgue, H.
Jones, Vaughan Frederick Randal	31.12.1952 -	Gisborn, New Zealand	1979	GENEVA	Haelfliger, A.
Jones, William	1675 - 03.07.1749	Llanfihangel, Tw'r Beird, Wales	no degree	no degree	?
Jordan, Marie Ennemond Camille	05.01.1838 - 22.01.1922	Lyons, France	1861	ECOLE POLYTECHNIQUE	Puiseux, Victor Alexandre

Julia, Gaston Maurice	03.02.1893 - 19.03.1978	Sidi-bel-Abbes, Algeria	1917	PARIS	Humbert, Georges; Picard, E.
Kepler, Johannes	27.12.1571 - 15.11.1630	Weil der Stadt, Germany	?	TUEBINGEN	Maestlin, Michael
Klein, Christian Felix	25.04.1849 - 22.06.1925	Duesseldorf, Germany	1869	BONN (PHD)	Lipschitz, Rudolf; Pluecker, J.; Clebsch, Alfred
Koch, Nils Fabian Helge von	25.01.1870 - 11.03.1924	Stockholm, Sweden	1892	STOCKHOLM	Mittag-Leffler, G.
Kolmogorov, Andrei N.	25.04.1903 - 26.10.1987	Tambov, Russia	1925	MOSCOW STATE	Uryson, Pavel S.; Luzin, Nikolai N.
Kovalevskaya, Sophia V.	15.01.1850 - 10.02.1891	Moscow, Russia	1874	GOETTINGEN (PHD)	Weierstrass, Karl
Kramp, Christian	08.07.1760 - 13.05.1826	Strasbourg, France	1790s	MD	?
Kronecker, Leopold	07.12.1823 - 1891	Liegnitz (Legnica), Poland	1845	BERLIN (PHD); BRESLAU	Dirichlet, G.; Kummer, E.
Krull, Wolfgang	26.08.1899 - 12.04.1971	Baden-Baden, Germany	1921	FREIBURG; GOETTINGEN	Loewy, Alfred; Klein, F.
Kummer, Ernst Eduard	29.01.1810 - 14.05.1893	Sorau (Zary), Poland	1831	HALLE (PHD)	Scherk, H.F.
Kuratowski, Kazimiercz	02.02.1896 - 18.06.1980	Warsaw, Poland	1921	WARSAW	Janiszewski, Z; Mazurkiewicz, S.
Kutta, Martin Wilhelm	03.11.1867 - 25.12.1944	Pitschen (Byczyna), Poland	1901	MUNICH	von Dyck, Walter Franz Anton
L'Hôpital, Guillaume François, Marquis de Ste. Mesme	1661 - 02.02.1704	Paris, France	1691	?	Bernoulli, Jakob
L'Huilier, Simone	24.04.1750 - 28.03.1840	Geneva, Switzerland	?	CALVIN ACADEMY	Bertrand, Louis; Le Sage, Georges
Lacroix, Sylvestre F.	28.04.1765 - 24.05.1843	Macon, France	?	?	Monge, G.
Lagrange, Joseph-	25.01.1736 -	Cambiano, Italy	no degree	no degree	Euler, Leonhard

Louis	11.04.1813				
Laguerre, Edmond Nicolas	09.04.1834 - 14.08.1886	Bar-le-Duc, France	1850s	ECOLE POLYTECHNIQUE	?
Lambert, Johann Heinrich	26.08.1728 - 25.09.1777	Mulhausen, France	no degree	Goettingen/The Hague/Paris/Zurich	Bernoullis/Euler/Kaestner/Mayer, Tobias/Pieter van Musschenbroek/d'Alembert/Gessner
Lame, Gabriel	22.07.1795 - 01.05.1870	Tours, France	1817; 1820	Ecole Polytech.; Ecole des Mines	?
Landau, Edmund	14.02.1877 - 19.02.1938	Berlin, Germany	1899	BERLIN	Frobenius, F.
Laplace, Pierre-Simon	23.03.1749 - 05.03.1827	Beaumont-en-Auge, France	1766+	CAEN; PARIS	D'Alembert, Jean
Lasker, Emanuel	24.12.1868 – 11.01.1941	Berlinchen, Prussia (now Barlinek, Poland)	1902	ERLANGEN	Hilbert, David
Lebesgue, Henri Leon	28.06.1875 - 26.07.1941	Beauvais, France	1890s 1902 (PHD)	ECOLE NORMALE; NANCY	Jordan, C.; Borel, Emile
Lefschetz, Solomon	03.09.1884 - 05.11.1972	Moscow, Russia	1911	CLARK (PHD)	Picard, Emile
Legendre, Adrien-Marie	18.09.1752 - 10.01.1833	Paris, France	1770	COLL. QUATRES NATIONS	Lagrange, Joseph
Leibniz, Gottfried Wilhelm von	01.07.1646 - 14.11.1716	Leipzig, Germany	1666	LEIPZIG (law)	Weigel, Erhard (Jena)
Leontief, Wassily Wassily	05.08.1906 - 1999	St. Petersburg, Russia	1927	ST. PETERSBURG; BERLIN	Sombart, Werner; Bortkiewicz, L.J.
Leshniewski, Stanislaw	30.03.1886 - 13.05.1939	Serpukhov, Russia	1912	LVOV	Twardowski, Kazimiercz; Lukasiewicz, Jan (influence)
Levi, Beppo	14.05.1875 - 28.08.1961	Turin, Italy	1896	TURIN	Segre, Corrado

Levi-Civita, Tullio	29.03.1873 - 29.12.1941	Padua, Italy	1894	PADUA	Veronese, G.; Ricci-Curbastro, G.
Lie, Marie Sophus	17.12.1842 - 18.02.1899	Nordfjordeid, Norway	1871	CHRISTIANIA (PHD)	Pluecker, Julius; Klein, Felix
Lindemann, Carl Louis Ferdinand von	12.04.1852 - 06.03.1939	Hanover, Germany	1873	ERLANGEN	Klein, F.; Clebsch, R. (Goettingen)
Liouville, Joseph	24.03.1809 - 1882	St. Omer, France	1830	ECOLE PONTS & CHAUSSEES	Ampere, A.; Arago; Cauchy, A.
Listing, Johann Benedict	25.07.1808 – 24.12.1882	Göttingen, Germany	1834	GÖTTINGEN	Gauss, Carl
Lorentz, Hendrik Anton	18.07.1853 - 04.02.1928	Arnhem, Netherlands	1875	LEIDEN	Rijke, Pieter Leonard
Lorenz, Edward Norton	23.05.1917 -	West Hartford, Connecticut, USA	1948	MIT	Austin, J.M.
Lucas, François Édouard Anatole	04.04.1842 - 03.11.1891	Amiens, France	?	ECOLE NORMALE, AMIENS; PARIS OBSERVATORY	Le Verrier, Urbain Jean Joseph
Lyapunov, Aleksandr M.	06.06.1857 - 03.11.1918	Yaroslavl, Russia	1892	ST. PETERSBURG	Chebyshef, Pafnuty
Maclaurin, Colin	02.1698 - 14.06.1746	Kilmodan, Argyll, Scotland	1713	GLASGOW	Simson, Robert
Mandelbrot, Benoit B.	20.11.1924 -	Warsaw, Poland	1952	PARIS	Levy, Paul (Ecole Polytech., 1944+)
Markov, Andrei Andreyevich	14.06.1856 - 20.07.1922	Ryazan, Russia	1878	ST. PETERSBURG	Chebyshef, Pafnuty
Mathieu, Émile Léonard	15.05.1835 - 19.10.1890	Metz, France	1859	ECOLE POLYTECHNIQUE	?
Maurolico, Franciso	16.09.1494 - 22.07.1575	Messina, Italy	1521	priest	?
Mazurkiewicz, Stefan	25.09.1888 - 19.06.1945	Warsaw, Poland	1913	LVOV	Sierpinski, V.
Mellin, Robert Hjalmar	19.06.1854 – 05.04.1933	Liminska, Finland	1882	HELSINKI	Mittag-Leffler, G.

Menelaus of Alexandria	70 - 130	Alexandria, Egypt	no degree	no degree	?
Mercator, Geradus	05.03.1512 - 02.12.1594	Rupelmonde, Belgium	1532	LOUVAIN	Frisius, Gemma
Mercator, Nicolaus	1620 - 14.01.1687	Rostock, Germany	1641	ROSTOCK	?
Mersenne, Marin	08.09.1588 - 01.09.1648	Oize, France	1611	SORBONNE (medicine)	Descartes, R.; Fermat, P.; Pascal, B.
Mertens, Franz	20.03.1840 - 05.03.1927	Schroda (Sroda), Poland	1865	BERLIN	Kronecker, L.
Minkowski, Hermann	22.06.1864 - 12.01.1909	Kovno, Russia	1885	KOENIGSBERG	Hilbert, D.; Hurwitz, Adolf
Mittag-Leffler, Goesta	16.03.1846 - 07.07.1927	Stockholm, Sweden	1872	UPPSALA (PHD); PARIS; BERLIN	Hermite, C.; Weierstrass, K.
Möbius, August Ferdinand	17.11.1790 - 26.09.1868	Schulpforta, Germany	1815	LEIPZIG	Pfaff, Johann; Gauss, Carl
Monge, Gaspard	09.05.1746 - 28.07.1818	Beaune, France	1760s	ECOLE ROY. GENIE MILITAIRE	?
Moore, Eliakim Hastings	26.01.1862 - 30.12.1932	Marietta, Ohio, USA	1885	YALE (PHD); BERLIN; LEIPZIG	Newton, H.A.; Kronecker, L.; Weierstrass, K.; Klein, F.
Moore, Robert Lee	14.11.1882 - 04.10.1974	Dallas, Texas, USA	1905	CHICAGO (PHD)	Veblen, O.
Morley, Frank	09.09.1860 - 17.10.1937	Woodbridge, England	1884 1898	CAMBRIDGE (BA)	?
Napier, John 8th Laird of Merchiston	1550 - 03.04.1617	Edinburgh, Scotland	1563	ST. ANDREWS	?
Navier, Claude L.M.H.	10.02.1785 - 21.08.1836	Dijon, France	1810s	ECOLE POLYTECHNIQUE	Fourier, J.
Neyman, Jerzy	16.04.1894 - 05.08.1981	Bendery, Moldavia	1924	WARSAW; KHARKOV; LONDON; PARIS	Bernstein, S.; Pearson, Karl; Lebesgue, Hadamard
Nicomedes	280 BC - 210 BC	Greece	no degree	no degree	?

Noether, Amalie Emmy	23.03.1882 - 14.04.1935	Erlangen, Germany	1908	GOETTINGEN (PHD)	Gordan, Paul Albert; Hilbert, D.; Klein, F.
Nunez Salacience, Pedro	1502 - 11.08.1578	Alcacer do Sal, Portugal	1525	LISBON (MD)	?
Oughtred, William	05.03.1575 - 30.06.1660	Eton, England	1600	CAMBRIDGE (MA)	?
Pappus of Alexandria	c. 290 -c. 350	Alexandria, Egypt	no degree	no degree	?
Parseval des Chenes, Marc-Antoine	27.04.1755 - 16.08.1836	Rosieres-aux-Salines, France	?	?	?
Pascal, Blaise	19.06.1623 - 19.08.1662	Clermont-Ferrand, France	no degree	no degree	Desargues, Girard; Fermat, P.
Pearson, Karl	27.03.1857 - 27.04.1936	London, England	1879	CAMBRIDGE	Sir Francis Galton
Pell, John	01.03.1611 - 12.12.1685	Southwick, Sussex, England	1630	CAMBRIDGE (MA)	?
Penrose, Roger	08.08.1931 -	Colchester, Essex	1957	LONDON	Todd, John Arthur
Peono, Giuseppe	27.08.1858 - 20.04.1932	Cuneo, Italy	1880	TURIN	D'Ovidio, Enrico
Petersen, Julius Peter Christian	16.06.1839 - 05.08.1910	Soro, Denmark	1871	COPENHAGEN	?
Picard, Charles Emile	24.07.1856 - 11.12.1941	Paris, France	1877	ECOLE NORMALE SUPER. PARIS	?
Pitiscus, Bartholomaeus	24.08.1561 - 02.07.1613	Gruenberg (Zielona), Poland	1595?	HEIDELBERG	?
Plateau, Joseph Antoine Ferdinand	14.10.1801 - 15.09.1883	Brussels, Belgium	1829	LIEGE	?
Plato	428 BC - 348 BC	Athens, Greece	no degree	no degree	?
Poincare, Jules Henri	29.04.1854 - 17.07.1912	Nancy, France	1879	PARIS	Hermite, Charles
Poisson, Simeon-Denis	21.06.1781 - 20.04.1840	Pithiviers, France	1800	ECOLE POLYTECHNIQUE	Laplace, Pierre
Polya, Gyorgy	13.12.1887 -	Budapest, Hungary	1911+	BUDAPEST;	Hilbert, D.; Toeplitz,

(George)	07.09.1985			GOETTINGEN	O.; Caratheodary, C.; Hecke, Erich
Poncelet, Jean Victor	01.07.1788 - 22.12.1867	Metz, France	1810	ECOLE POLYTECHNIQUE	Monge, G.; Ampere, A.
Ptolemy (Claudius Ptolemaeus)	90 - 168	Alexandria, Egypt	no degree	no degree	?
Pythagoras of Samos	6th century	Samos, Greece	no degree	no degree	?
Rahn, Johann Friedrich	10.03.1622 - 1676	Zurich, Switzerland	no degree	no degree	?
Ramanujan, Srinivasa Iyengar	22.12.1887 - 26.04.1920	Erode, India	1904	KUMBAKONAM; CAMBRIDGE	Hardy, Godfrey H.
Raphson, Joseph	1648 - 1715	Middlesex, England	1692	CAMBRIDGE (MA)	?
Recorde, Robert	1510 - 1558	Tenby, Wales	1531, 1545	OXFORD (BA), CAMBRIDGE (MD)	?
Reutersvard, Oscar	1915 -	?	?	?	?
Riccati, Jacopo Francesco	28.05.1676 - 15.04.1754	Venice, Italy	1690s	PADUA	Angeli, Stefano degli
Riccati, Vincenzo	11.01.1707 – 17.01.1775	Castelfrfanco, Veneto, Italy	1726	JESUIT ORDER	?
Ricci-Curbastro, Gregorio	12.01.1853 - 06.08.1925	Lugo, Italy	1875	PISA	Betti, Enrico
Riemann, Georg Friedrich Bernhard	17.09.1826 - 20.07.1866	Dannenberg, Germany	1851	BERLIN (PHD)	Dirichlet, G.
Riesz, Frigyes	22.01.1880 - 28.02.1956	Gyor, Hungary	1902	EOTVOS UNIV. BUDAPEST	Valyi, Gyula
Riesz, Marcel	16.11.1886 - 04.09.1969	Gyor, Hungary	1909	BUDAPEST	Fejer, Lipot
Rodrigues, Benjamin Olinde	16.10.1794 – 17.12.1851	Bordeaux, France	1816	ECOLE NORMALE	?
Rolle, Michel	21.04.1652 - 08.11.1719	Ambert, France	no degree	self-educated	?
Rudolff, Christoff	1499 - 1545	Jauer (Jawor), Poland	1521	VIENNA	?

Runge, Carle David Tolmé	30.08.1856 - 03.01.1927	Bremen, Germany	1880	BERLIN; STOCKHOLM	Weierstrass, K.; Kronecker, L.; Mittag-Leffler, G.
Russell, Bernard Arthur William, 3rd Earl Russell	18.05.1872 - 02.02.1970	Trelleck, Gwent, Wales	1894	CAMBRIDGE	?
Sarrus, J.P.	1789 - 1861	?	?	?	?
Schmidt, Erhardt	13.01.1876 - 06.12.1959	Dorpat (Tartu), Estonia	1905	GOETTINGEN	Hilbert, David
Schwarz, Karl Hermann Amandus	25.01.1843 - 30.11.1921	Hermsdorf, Poland	1864	BERLIN	Weierstrass, K.
Seidel, Ludwig Philipp von	24.10.1821 - 31.08.1896	Zweibruecken, Germany	1846	MUNICH	Dirichlet (Berlin); Bessel, Jacobi, Neumann Franz (Koenigsberg)
Servois, Francois Joseph	19.07.1767 - 17.04.1847	Mont-de-Laval, France	1794	CHALONS-SUR-MARNE ARTILLERY (Lieut.)	Legendre, A.M.
Shannon, Claude Elwood	30.04.1916 - 22.02.2001	Gaylord, Michigan, USA	1940	MIT	Bush, Vannevar
Sierpinski, Vaclav	14.03.1882 - 21.10.1969	Warsaw, Poland	1906	CRACOW; LVOV	Vorony, Georgy F.
Simpson, Thomas	20.08.1710 - 14.05.1761	Market Bosworth, England	no degree	no degree	?
Smith, Henry John Stephen	02.11.1826 - 1881	Dublin, Ireland	1845+	OXFORD	Jowett, Benjamin
Stevin, Simon	1548 - 1620	Bruges, Belgium	1583+	LEIDEN	?
Stieltjes, Thomas Jan	29.12.1856 - 31.12.1894	Zwolle, Netherlands	1873+	DELFT	Hermite, Charles
Stirling, James	?.05.1692 - 05.12.1770	Garden, Scotland	1710	EDINBURGH (matriculated)	?
Sylow, Peter Ludwig Mejdell	12.12.1832 - 07.09.1918	Oslo, Norway	1850s 1894 (PHD)	CHRISTIANIA; COPENHAGEN	?

Sylvester, James Joseph	03.09.1814 - 15.03.1897	London, England	1841	CAMBRIDGE (MA)	de Morgan, Augustus
Takagi, Teiji	21.04.1875 - 28.02.1960	Kasuya, Japan	1897	TOKYO (PHD); BERLIN; GOETTINGEN	Fujisawa, Rikitaro; Frobenius, Ferdinand; Hilbert, D.; Klein, F.
Tarski, Alfred	14.01.1902 - 26.10.1983	Warsaw, Poland	1924	WARSAW	Leshniewski, S.
Taylor, Brook	18.08.1685 - 29.12.1731	Edmonton, Middlesex, England	1709	CAMBRIDGE (LLB)	Keill, John
Thales of Miletus	624 BC - 545 BC	Miletus, Greece	no degree	no degree	?
Tukey, John Wilder	16.06.1915 - 26.07.2000	New Bedford, Mass., USA	1939	PRINCETON	Lefschetz, Solomon
Turing, Alan Mathison	23.06.1912 - 07.06.1954	London, England	1935	CAMBRIDGE; PRINCETON	Newman, Maxwell H.A.
Tutte, William Thomas	14.05.1917 – 02.05.2002	Newmarket, Suffolk, England	1948	CAMBRIDGE	Wylie, Shaun
Ulam, Stanislav	03.04.1909 - 13.05.1984	Lemberg (Lvov), Ukraine	1933	POLYTECH. INST. LVOV	Banach, S.
Vandermonde, Alexandre Theóphile	28.02.1735 - 01.01.1796	Paris, France	1757	PARIS (music)	Lagrange, J.; Monge, G.
Varignon, Pierre	1654 - 23.12.1722	Caen, France	1682 1687	CAEN (MA) ACAD. ROY. SCI. PARIS	?
Veblen, Oswald	24.06.1880 - 10.08.1960	Decorah, Iowa, USA	1903	CHICAGO (PHD)	Moore, E.H.
Venn, John	04.08.1834 - 04.04.1923	Drypool, Hull, England	1857	CAMBRIDGE	?
Vieta, François Viète	1540 - 13.12.1603	Fontenay-le-Comte, France	1560	POITIERS (law)	?
Vinogradov, Ivan Matveïevitch	14.09.1891 - 20.03.1983	Milolyub, Russia	1914	ST. PETERSBURG	Uspenskii; Markov, A.
Volterra, Vito	03.05.1860 -	Ancona, Italy	1882	PISA	Betti, Enrico

	11.10.1940				
von Mises, Richard	19.04.1883 - 14.07.1953	Lvov, Ukraine	1907	VIENNA	?
von Neumann, Janos (John)	28.12.1903 - 08.02.1957	Budapest, Hungary	1925	BUDAPEST; GOETTINGEN	Polya, G.; Hilbert, D.; Heisenberg, W.
Wallis, John	23.11.1616 - 28.10.1703	Ashford, Kent, England	1640s	CAMBRIDGE	?
Weibull, E.H. Wallodi	18.06.1887 - 12.10.1979	Sweden	1932	UPPSALA	?
Weierstrass, Karl Theodor Wilhelm	31.10.1815 - 19.02.1897	Muenster, Germany	1834	THEOL. & PHIL. ACADEMY, MUENSTER	Gudermann, Christoff
Wenzelides	?	?	?	?	?
Weyl, Claus Hugo Hermann	09.11.1885 - 09.12.1955	Elmshorn, Germany	1908	GOETTINGEN (PHD)	Hilbert, David
Widman, Johannes	1462 - 1498	Eger (Cheb), Czech Republic	1485	LEIPZIG (masters)	?
Wiener, Norbert	26.11.1894 - 18.03.1964	Columbia, Missouri, USA	1913	HARVARD (PHD); CAMBRIDGE	Russell, Bernard; Hardy, G.H.
Wilcoxon, Frank	02.09.1892 - 1965	Cork, Ireland	1924	CORNELL	Browne, Arthur W.
Wiles, Andrew J.	11.04.1953 -	Cambridge, England	1980	CAMBRIDGE	Coates, John Henry
Wronski, Józef Hoëné de	23.08.1778 - 08.08.1853	Wolsztyn, Poland	no degree	no degree	?
Zariski, Oscar	24.04.1899 - 04.07.1986	Kobrin, Russia	1918	KIEV; ROME	Castelnuovo, Guido
Zeno of Elea	490 BC - 430 BC	Elea, Lucania, Italy	no degree	no degree	Parmenides
Zermelo, Ernst F.F.	27.07.1871 - 21.05.1953	Berlin, Germany	1894	BERLIN	Weierstrass, K.; Planck, M. (Berlin)
Zorn, Max A.	06.06.1906 - 09.03.1993	Krefeld, Germany	1930	HAMBURG	Artin, Emil

Notes:
Bolded names are those that are still alive at the time of this writing.

Italicized names do not have named mathematical things attributed to them.

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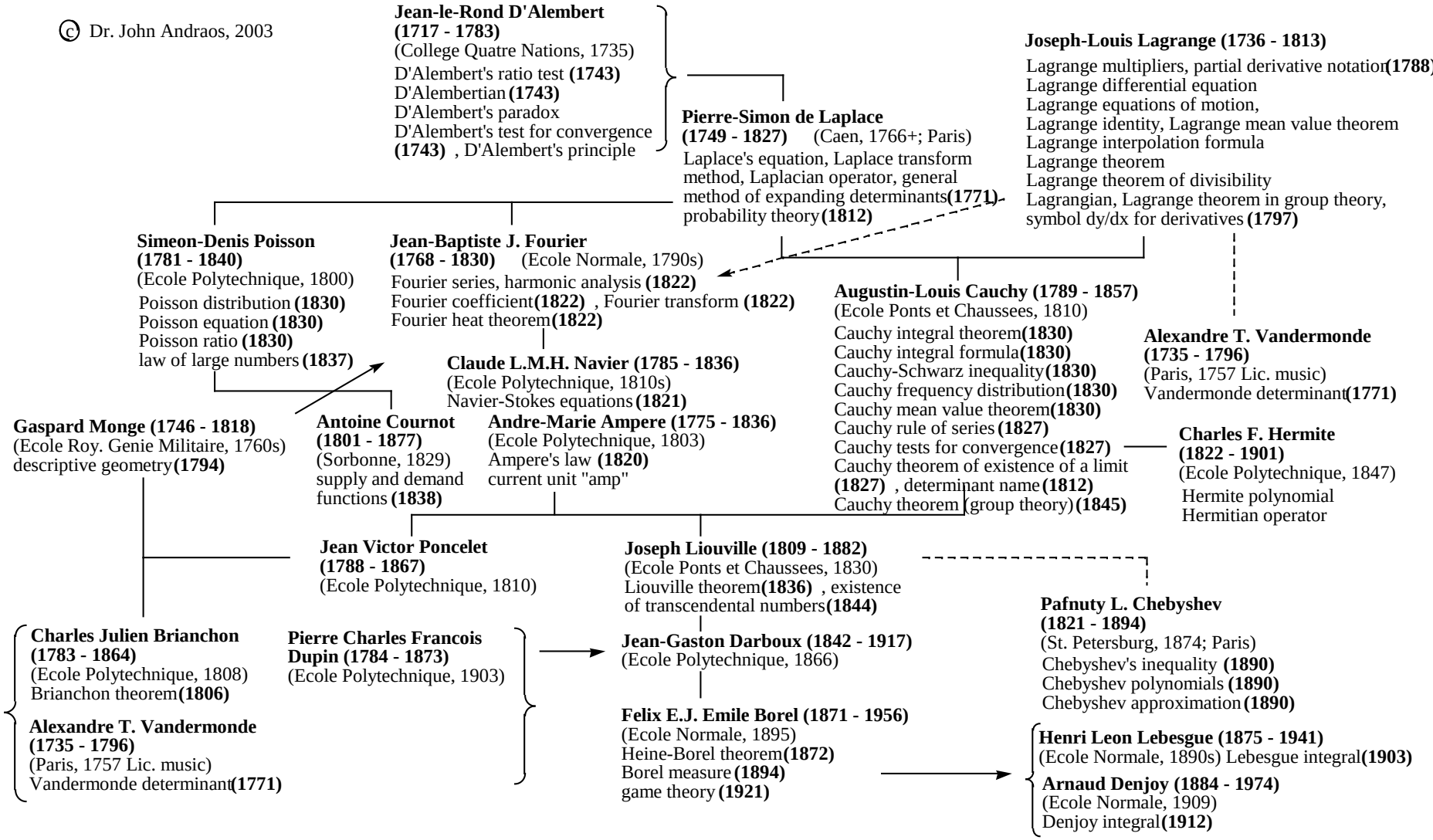
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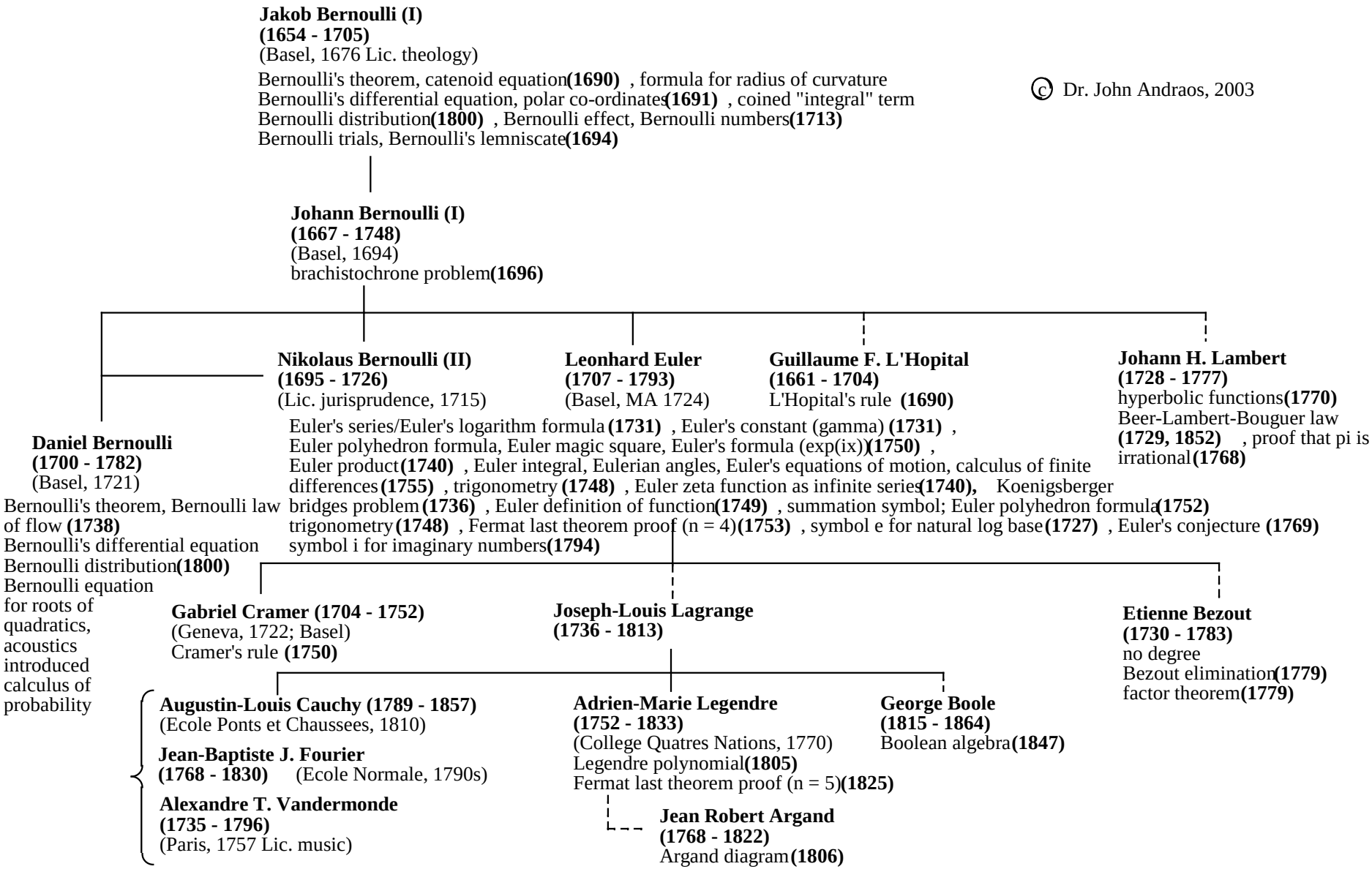
Jean-le-Rond D'Alembert (1717 - 1783) (College Quatre Nations, 1735)
D'Alembert's ratio test (1743)
D'Alembertian (1743)
D'Alembert's paradox
D'Alembert's test for convergence (1743) , D'Alembert's principle
Pierre-Simon de Laplace (1749 - 1827) (Caen, 1766+; Paris)
Laplace's equation, Laplace transform method, Laplacian operator, general method of expanding determinants (1771) probability theory (1812)
Joseph-Louis Lagrange (1736 - 1813)
Lagrange multipliers, partial derivative notation (1788)
Lagrange differential equation
Lagrange equations of motion,
Lagrange identity, Lagrange mean value theorem
Lagrange interpolation formula
Lagrange theorem
Lagrange theorem of divisibility
Lagrangian, Lagrange theorem in group theory,
symbol dy/dx for derivatives (1797)
Simeon-Denis Poisson (1781 - 1840) (Ecole Polytechnique, 1800)
Poisson distribution (1830)
Poisson equation (1830)
Poisson ratio (1830)
law of large numbers (1837)
Jean-Baptiste J. Fourier (1768 - 1830) (Ecole Normale, 1790s)
Fourier series, harmonic analysis (1822)
Fourier coefficient (1822) , Fourier transform (1822)
Fourier heat theorem (1822)
Claude L.M.H. Navier (1785 - 1836) (Ecole Polytechnique, 1810s)
Navier-Stokes equations (1821)
Augustin-Louis Cauchy (1789 - 1857) (Ecole Ponts et Chaussees, 1810)
Cauchy integral theorem (1830)
Cauchy integral formula (1830)
Cauchy-Schwarz inequality (1830)
Cauchy frequency distribution (1830)
Cauchy mean value theorem (1830)
Cauchy rule of series (1827)
Cauchy tests for convergence (1827)
Cauchy theorem of existence of a limit (1827) , determinant name (1812)
Cauchy theorem (group theory) (1845)
Alexandre T. Vandermonde (1735 - 1796) (Paris, 1757 Lic. music)
Vandermonde determinant (1771)
Charles F. Hermite (1822 - 1901) (Ecole Polytechnique, 1847)
Hermite polynomial
Hermitian operator
Gaspard Monge (1746 - 1818) (Ecole Roy. Genie Militaire, 1760s)
descriptive geometry (1794)
Antoine Cournot (1801 - 1877) (Sorbonne, 1829)
supply and demand functions (1838)
Andre-Marie Ampere (1775 - 1836) (Ecole Polytechnique, 1803)
Ampere's law (1820)
current unit "amp"
Jean Victor Poncelet (1788 - 1867) (Ecole Polytechnique, 1810)
Joseph Liouville (1809 - 1882) (Ecole Ponts et Chaussees, 1830)
Liouville theorem (1836) , existence of transcendental numbers (1844)
Pafnuty L. Chebyshev (1821 - 1894) (St. Petersburg, 1874; Paris)
Chebyshev's inequality (1890)
Chebyshev polynomials (1890)
Chebyshev approximation (1890)
Charles Julien Brianchon (1783 - 1864) (Ecole Polytechnique, 1808)
Brianchon theorem (1806)
Alexandre T. Vandermonde (1735 - 1796) (Paris, 1757 Lic. music)
Vandermonde determinant (1771)
Pierre Charles Francois Dupin (1784 - 1873) (Ecole Polytechnique, 1903)
Jean-Gaston Darboux (1842 - 1917) (Ecole Polytechnique, 1866)
Felix E.J. Emile Borel (1871 - 1956) (Ecole Normale, 1895)
Heine-Borel theorem (1872)
Borel measure (1894)
game theory (1921)
Henri Leon Lebesgue (1875 - 1941) (Ecole Normale, 1890s) Lebesgue integral (1903)
Arnaud Denjoy (1884 - 1974) (Ecole Normale, 1909)
Denjoy integral (1912)


Jakob Bernoulli (I)
(1654 - 1705)
(Basel, 1676 Lic. theology)
Bernoulli's theorem, catenoid equation (1690) , formula for radius of curvature
Bernoulli's differential equation, polar co-ordinates (1691) , coined "integral" term
Bernoulli distribution (1800) , Bernoulli effect, Bernoulli numbers (1713)
Bernoulli trials, Bernoulli's lemniscate (1694)
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Johann Bernoulli (I)
(1667 - 1748)
(Basel, 1694)
brachistochrone problem (1696)
Nikolaus Bernoulli (II)
(1695 - 1726)
(Lic. jurisprudence, 1715)
Leonhard Euler
(1707 - 1793)
(Basel, MA 1724)
Guillaume F. L'Hopital
(1661 - 1704)
L'Hopital's rule (1690)
Johann H. Lambert
(1728 - 1777)
hyperbolic functions (1770)
Beer-Lambert-Bouguer law
(1729, 1852) , proof that pi is irrational (1768)
Daniel Bernoulli
(1700 - 1782)
(Basel, 1721)
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Bernoulli's differential equation
Bernoulli distribution (1800)
Bernoulli equation
for roots of quadratics, acoustics introduced calculus of probability
Euler's series/Euler's logarithm formula (1731) , Euler's constant (gamma) (1731) ,
Euler polyhedron formula, Euler magic square, Euler's formula (exp(ix)) (1750) ,
Euler product (1740) , Euler integral, Eulerian angles, Euler's equations of motion, calculus of finite differences (1755) , trigonometry (1748) , Euler zeta function as infinite series (1740), Koenigsberger bridges problem (1736) , Euler definition of function (1749) , summation symbol; Euler polyhedron formula (1752) trigonometry (1748) , Fermat last theorem proof (n = 4) (1753) , symbol e for natural log base (1727) , Euler's conjecture (1769) symbol i for imaginary numbers (1794)
Gabriel Cramer (1704 - 1752)
(Geneva, 1722; Basel)
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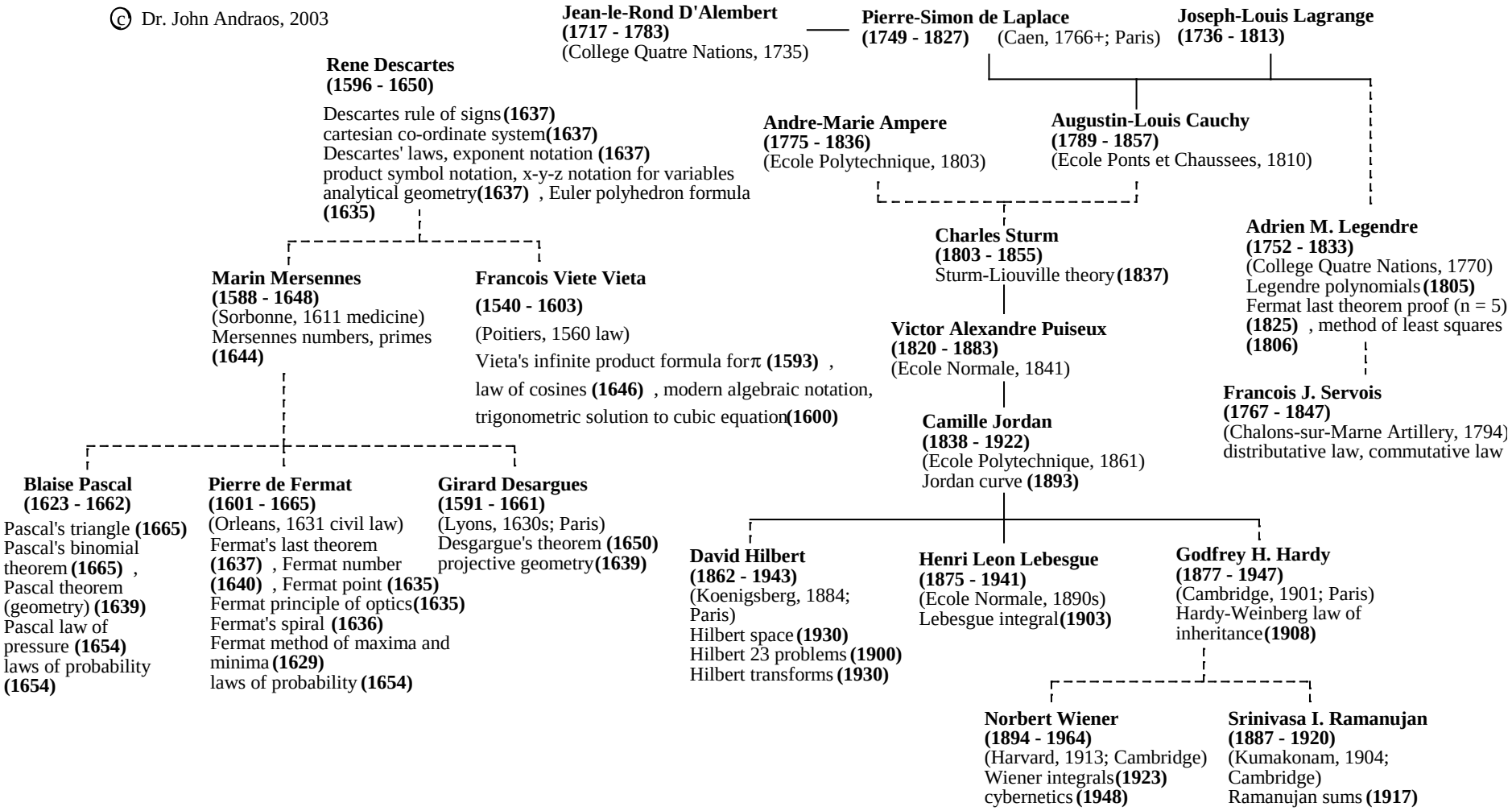
Joseph-Louis Lagrange
(1736 - 1813)
Etienne Bezout
(1730 - 1783)
no degree
Bezout elimination (1779)
factor theorem (1779)
Augustin-Louis Cauchy (1789 - 1857)
(Ecole Ponts et Chaussees, 1810)
Jean-Baptiste J. Fourier
(1768 - 1830) (Ecole Normale, 1790s)
Alexandre T. Vandermonde
(1735 - 1796)
(Paris, 1757 Lic. music)
Adrien-Marie Legendre
(1752 - 1833)
(College Quatres Nations, 1770)
Legendre polynomial (1805)
Fermat last theorem proof (n = 5) (1825)
George Boole
(1815 - 1864)
Boolean algebra (1847)
Jean Robert Argand
(1768 - 1822)
Argand diagram (1806)


© Dr. John Andraos, 2003
Jean-le-Rond D'Alembert
(1717 - 1783)
(College Quatre Nations, 1735)
Pierre-Simon de Laplace
(1749 - 1827)
(Caen, 1766+; Paris)
Joseph-Louis Lagrange
(1736 - 1813)
Rene Descartes
(1596 - 1650)
Descartes rule of signs (1637)
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Andre-Marie Ampere
(1775 - 1836)
(Ecole Polytechnique, 1803)
Augustin-Louis Cauchy
(1789 - 1857)
(Ecole Ponts et Chaussees, 1810)
Charles Sturm
(1803 - 1855)
Sturm-Liouville theory (1837)
Adrien M. Legendre
(1752 - 1833)
(College Quatre Nations, 1770)
Legendre polynomials (1805)
Fermat last theorem proof (n = 5) (1825) , method of least squares (1806)
Marin Mersennes
(1588 - 1648)
(Sorbonne, 1611 medicine)
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Francois Viete Vieta
(1540 - 1603)
(Poitiers, 1560 law)
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law of cosines (1646) , modern algebraic notation,
trigonometric solution to cubic equation (1600)
Victor Alexandre Puiseux
(1820 - 1883)
(Ecole Normale, 1841)
Francois J. Servois
(1767 - 1847)
(Chalons-sur-Marne Artillery, 1794)
distributative law, commutative law
Camille Jordan
(1838 - 1922)
(Ecole Polytechnique, 1861)
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Blaise Pascal
(1623 - 1662)
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Pascal's binomial theorem (1665) ,
Pascal theorem (geometry) (1639)
Pascal law of pressure (1654)
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Pierre de Fermat
(1601 - 1665)
(Orleans, 1631 civil law)
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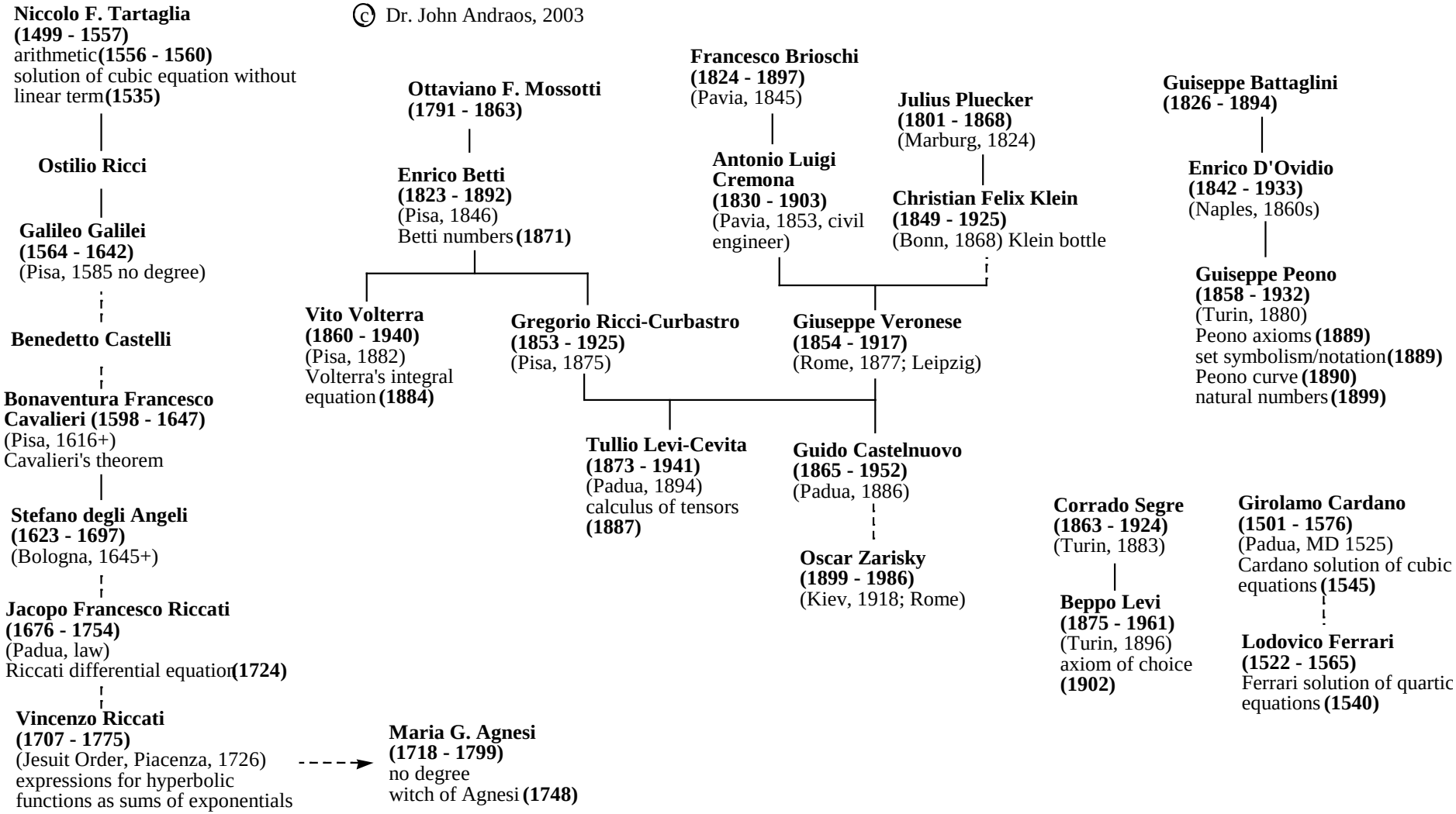
Fermat principle of optics (1635)
Fermat's spiral (1636)
Fermat method of maxima and minima (1629)
laws of probability (1654)
Girard Desargues
(1591 - 1661)
(Lyons, 1630s; Paris)
Desgargue's theorem (1650)
projective geometry (1639)
David Hilbert
(1862 - 1943)
(Koenigsberg, 1884; Paris)
Hilbert space (1930)
Hilbert 23 problems (1900)
Hilbert transforms (1930)
Henri Leon Lebesgue
(1875 - 1941)
(Ecole Normale, 1890s)
Lebesgue integral (1903)
Godfrey H. Hardy
(1877 - 1947)
(Cambridge, 1901; Paris)
Hardy-Weinberg law of inheritance (1908)
Norbert Wiener
(1894 - 1964)
(Harvard, 1913; Cambridge)
Wiener integrals (1923)
cybernetics (1948)
Srinivasa I. Ramanujan
(1887 - 1920)
(Kumakonam, 1904; Cambridge)
Ramanujan sums (1917)


Niccolo F. Tartaglia (1499 - 1557) arithmetic (1556 - 1560) solution of cubic equation without linear term (1535)
Ostilio Ricci
Galileo Galilei (1564 - 1642) (Pisa, 1585 no degree)
Benedetto Castelli
Bonaventura Francesco Cavalieri (1598 - 1647) (Pisa, 1616+) Cavalieri's theorem
Stefano degli Angeli (1623 - 1697) (Bologna, 1645+)
Jacopo Francesco Riccati (1676 - 1754) (Padua, law) Riccati differential equation (1724)
Vincenzo Riccati (1707 - 1775) (Jesuit Order, Piacenza, 1726) expressions for hyperbolic functions as sums of exponentials
Maria G. Agnesi (1718 - 1799) no degree witch of Agnesi (1748)
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Ottaviano F. Mossotti (1791 - 1863)
Enrico Betti (1823 - 1892) (Pisa, 1846) Betti numbers (1871)
Vito Volterra (1860 - 1940) (Pisa, 1882) Volterra's integral equation (1884)
Gregorio Ricci-Curbastro (1853 - 1925) (Pisa, 1875)
Tullio Levi-Cevita (1873 - 1941) (Padua, 1894) calculus of tensors (1887)
Francesco Brioschi (1824 - 1897) (Pavia, 1845)
Antonio Luigi Cremona (1830 - 1903) (Pavia, 1853, civil engineer)
Julius Pluecker (1801 - 1868) (Marburg, 1824)
Christian Felix Klein (1849 - 1925) (Bonn, 1868) Klein bottle
Giuseppe Veronese (1854 - 1917) (Rome, 1877; Leipzig)
Guido Castelnuovo (1865 - 1952) (Padua, 1886)
Oscar Zarisky (1899 - 1986) (Kiev, 1918; Rome)
Guiseppe Battaglini (1826 - 1894)
Enrico D'Ovidio (1842 - 1933) (Naples, 1860s)
Guiseppe Peono (1858 - 1932) (Turin, 1880) Peono axioms (1889) set symbolism/notation (1889) Peono curve (1890) natural numbers (1899)
Corrado Segre (1863 - 1924) (Turin, 1883)
Beppo Levi (1875 - 1961) (Turin, 1896) axiom of choice (1902)
Girolamo Cardano (1501 - 1576) (Padua, MD 1525) Cardano solution of cubic equations (1545)
Lodovico Ferrari (1522 - 1565) Ferrari solution of quartic equations (1540)

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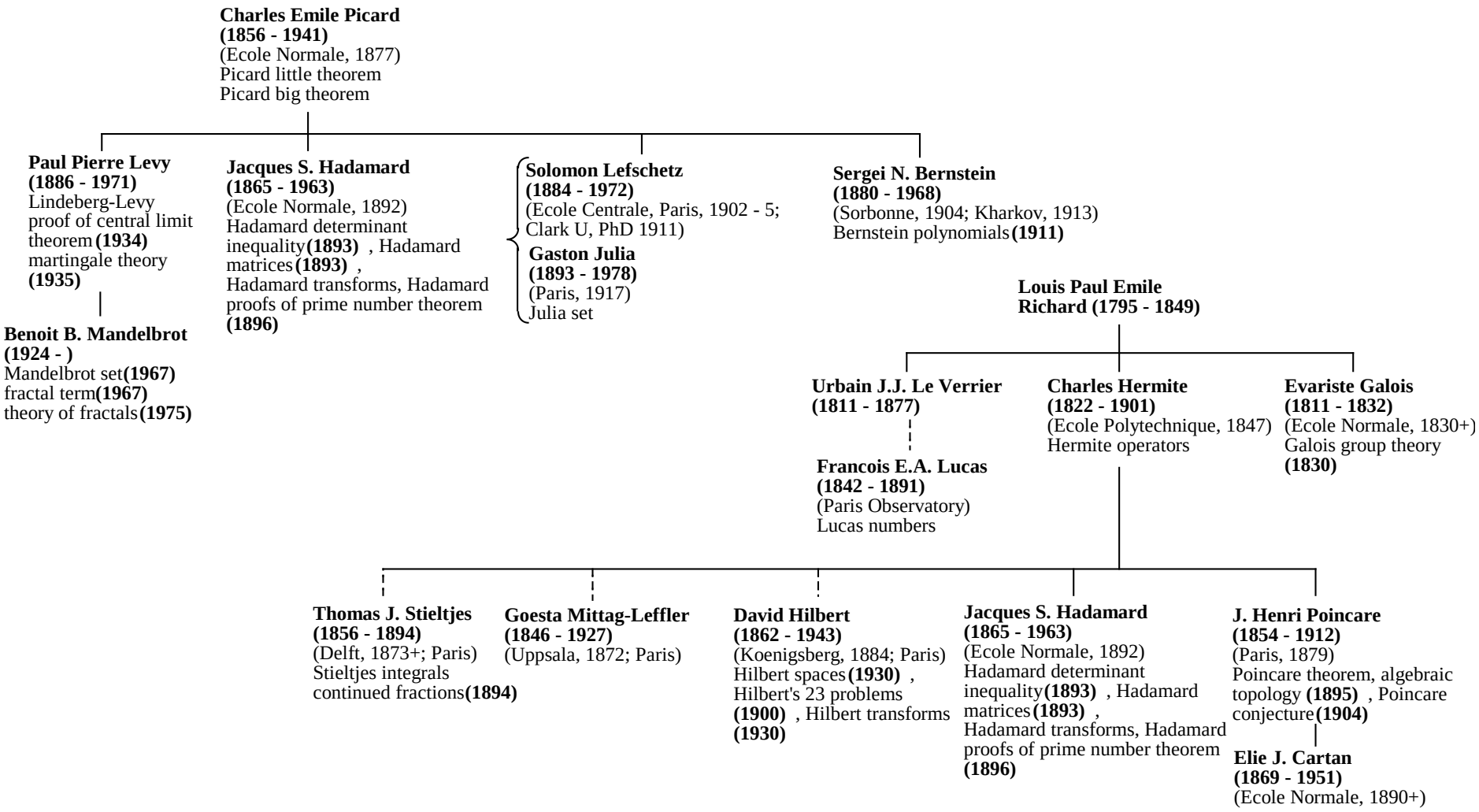

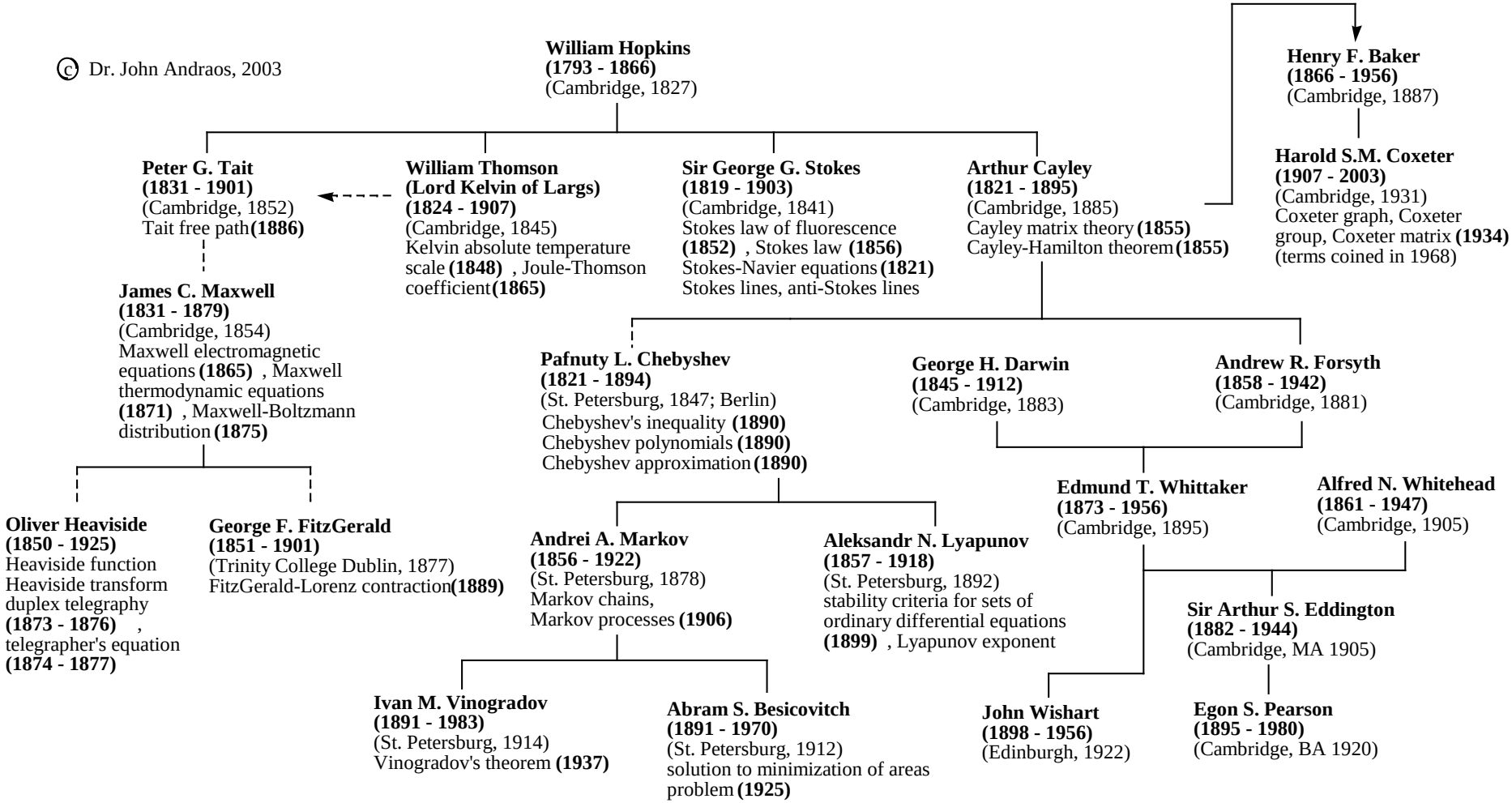
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William Hopkins
(1793 - 1866)
(Cambridge, 1827)
Peter G. Tait
(1831 - 1901)
(Cambridge, 1852)
Tait free path (1886)
William Thomson
(Lord Kelvin of Largs)
(1824 - 1907)
(Cambridge, 1845)
Kelvin absolute temperature scale (1848) , Joule-Thomson coefficient (1865)
Sir George G. Stokes
(1819 - 1903)
(Cambridge, 1841)
Stokes law of fluorescence (1852) , Stokes law (1856)
Stokes-Navier equations (1821)
Stokes lines, anti-Stokes lines
Arthur Cayley
(1821 - 1895)
(Cambridge, 1885)
Cayley matrix theory (1855)
Cayley-Hamilton theorem (1855)
Henry F. Baker
(1866 - 1956)
(Cambridge, 1887)
Harold S.M. Coxeter
(1907 - 2003)
(Cambridge, 1931)
Coxeter graph, Coxeter group, Coxeter matrix (1934)
(terms coined in 1968)
James C. Maxwell
(1831 - 1879)
(Cambridge, 1854)
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Pafnuty L. Chebyshev
(1821 - 1894)
(St. Petersburg, 1847; Berlin)
Chebyshev's inequality (1890)
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Chebyshev approximation (1890)
George H. Darwin
(1845 - 1912)
(Cambridge, 1883)
Andrew R. Forsyth
(1858 - 1942)
(Cambridge, 1881)
Oliver Heaviside
(1850 - 1925)
Heaviside function
Heaviside transform
duplex telegraphy (1873 - 1876) ,
telegrapher's equation (1874 - 1877)
George F. FitzGerald
(1851 - 1901)
(Trinity College Dublin, 1877)
FitzGerald-Lorenz contraction (1889)
Andrei A. Markov
(1856 - 1922)
(St. Petersburg, 1878)
Markov chains,
Markov processes (1906)
Aleksandr N. Lyapunov
(1857 - 1918)
(St. Petersburg, 1892)
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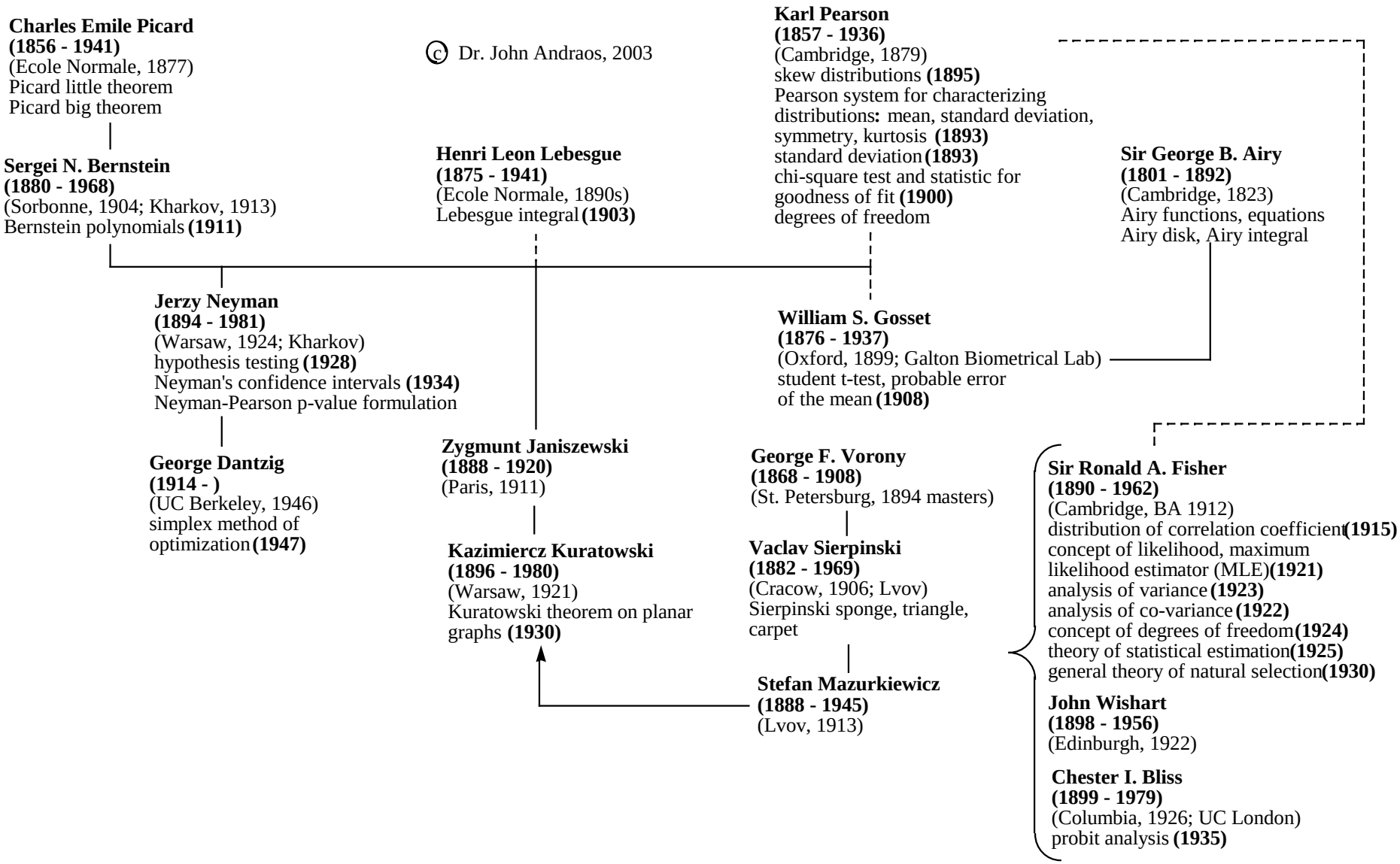
Edmund T. Whittaker
(1873 - 1956)
(Cambridge, 1895)
Alfred N. Whitehead
(1861 - 1947)
(Cambridge, 1905)
Sir Arthur S. Eddington
(1882 - 1944)
(Cambridge, MA 1905)
Ivan M. Vinogradov
(1891 - 1983)
(St. Petersburg, 1914)
Vinogradov's theorem (1937)
Abram S. Besicovitch
(1891 - 1970)
(St. Petersburg, 1912)
solution to minimization of areas problem (1925)
John Wishart
(1898 - 1956)
(Edinburgh, 1922)
Egon S. Pearson
(1895 - 1980)
(Cambridge, BA 1920)


Charles Emile Picard
(1856 - 1941)
(Ecole Normale, 1877)
Picard little theorem
Picard big theorem
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Karl Pearson
(1857 - 1936)
(Cambridge, 1879)
skew distributions (1895)
Pearson system for characterizing distributions: mean, standard deviation, symmetry, kurtosis (1893)
standard deviation (1893)
chi-square test and statistic for goodness of fit (1900)
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Sergei N. Bernstein
(1880 - 1968)
(Sorbonne, 1904; Kharkov, 1913)
Bernstein polynomials (1911)
Henri Leon Lebesgue
(1875 - 1941)
(Ecole Normale, 1890s)
Lebesgue integral (1903)
Sir George B. Airy
(1801 - 1892)
(Cambridge, 1823)
Airy functions, equations
Airy disk, Airy integral
Jerzy Neyman
(1894 - 1981)
(Warsaw, 1924; Kharkov)
hypothesis testing (1928)
Neyman's confidence intervals (1934)
Neyman-Pearson p-value formulation
William S. Gosset
(1876 - 1937)
(Oxford, 1899; Galton Biometrical Lab)
student t-test, probable error of the mean (1908)
George Dantzig
(1914 -)
(UC Berkeley, 1946)
simplex method of optimization (1947)
Zygmunt Janiszewski
(1888 - 1920)
(Paris, 1911)
George F. Vorony
(1868 - 1908)
(St. Petersburg, 1894 masters)
Sir Ronald A. Fisher
(1890 - 1962)
(Cambridge, BA 1912)
distribution of correlation coefficient (1915)
concept of likelihood, maximum likelihood estimator (MLE) (1921)
analysis of variance (1923)
analysis of co-variance (1922)
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Kazimiercz Kuratowski
(1896 - 1980)
(Warsaw, 1921)
Kuratowski theorem on planar graphs (1930)
Vaclav Sierpinski
(1882 - 1969)
(Cracow, 1906; Lvov)
Sierpinski sponge, triangle, carpet
Stefan Mazurkiewicz
(1888 - 1945)
(Lvov, 1913)
John Wishart
(1898 - 1956)
(Edinburgh, 1922)
Chester I. Bliss
(1899 - 1979)
(Columbia, 1926; UC London)
probit analysis (1935)

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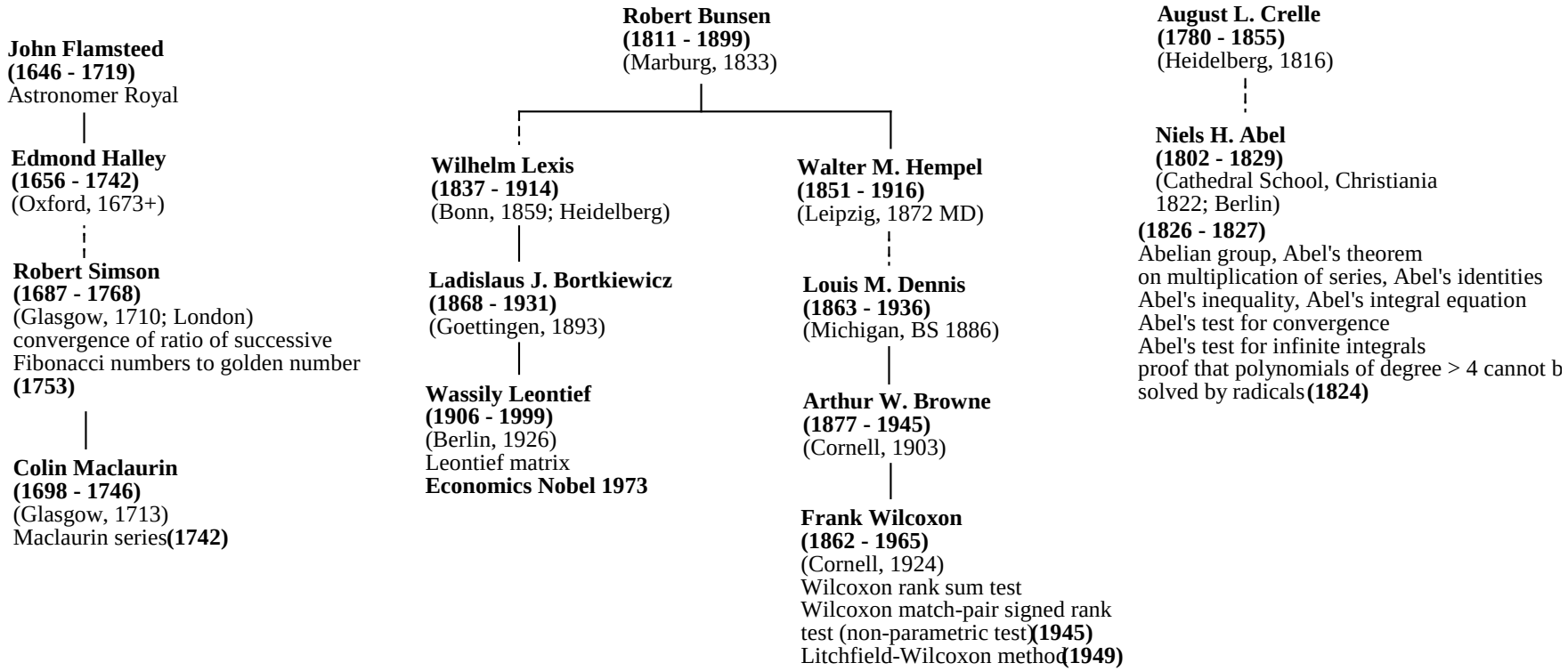

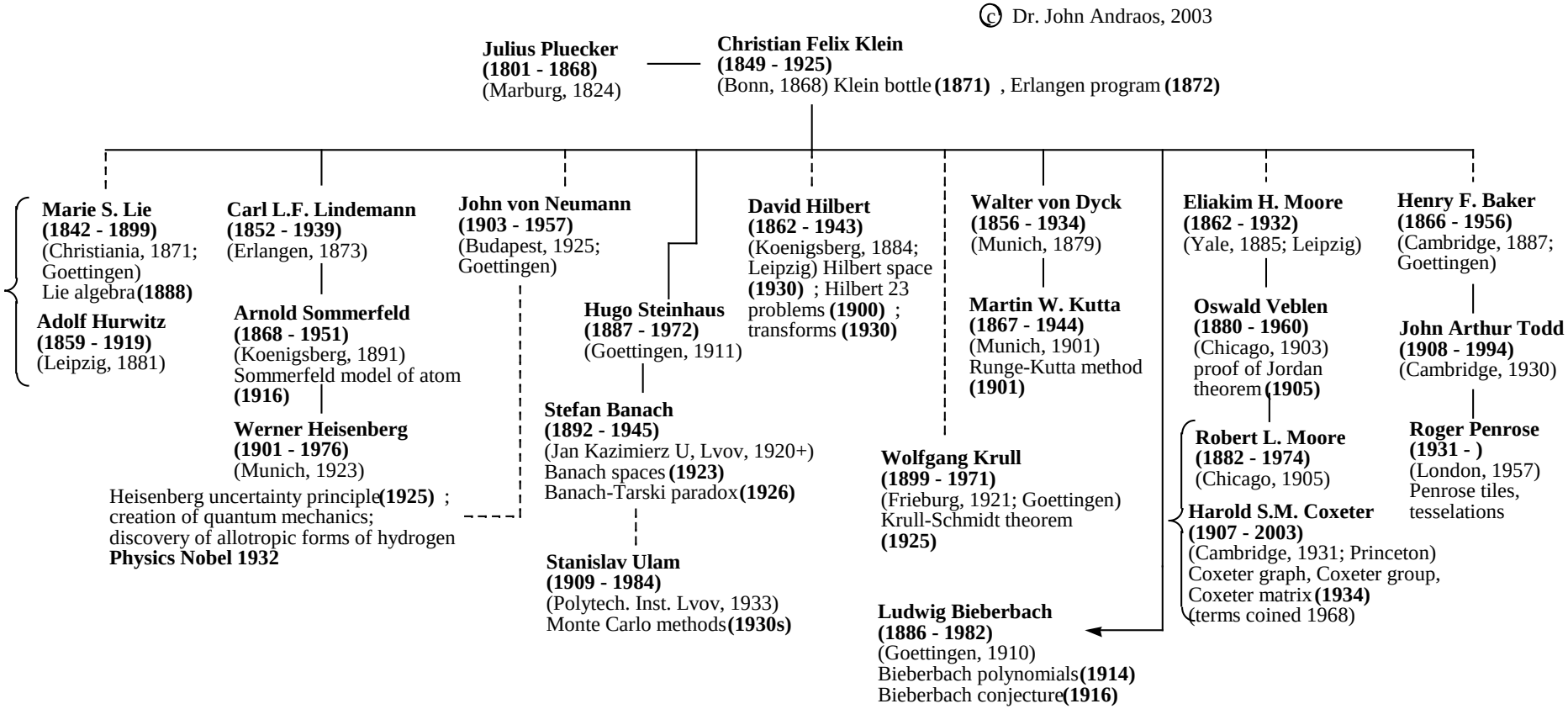
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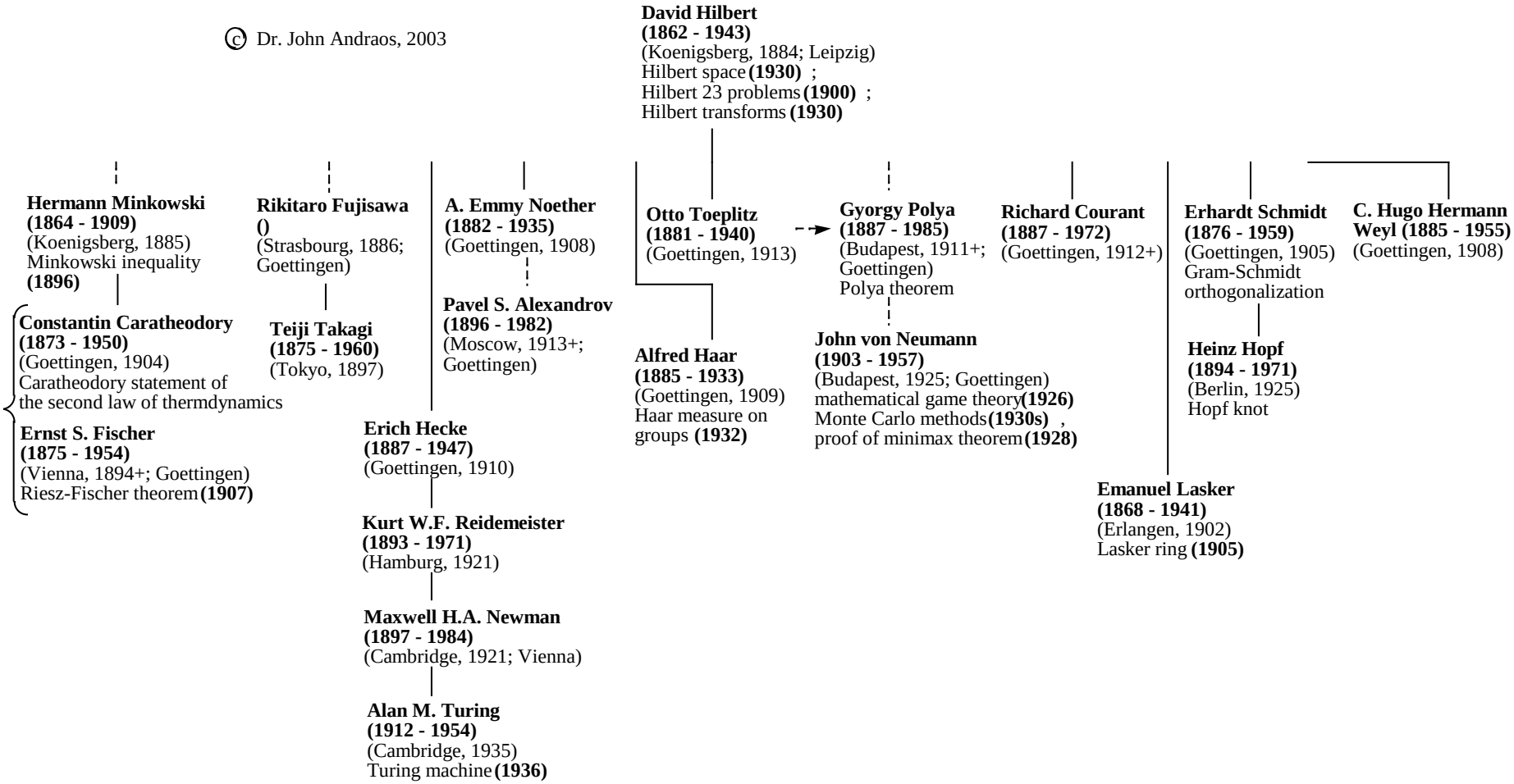
Julius Pluecker (1801 - 1868) (Marburg, 1824)
Christian Felix Klein (1849 - 1925) (Bonn, 1868) Klein bottle (1871) , Erlangen program (1872)
Marie S. Lie (1842 - 1899) (Christiania, 1871; Goettingen) Lie algebra (1888)
Adolf Hurwitz (1859 - 1919) (Leipzig, 1881)
Carl L.F. Lindemann (1852 - 1939) (Erlangen, 1873)
Arnold Sommerfeld (1868 - 1951) (Koenigsberg, 1891) Sommerfeld model of atom (1916)
Werner Heisenberg (1901 - 1976) (Munich, 1923)
Heisenberg uncertainty principle (1925) ; creation of quantum mechanics; discovery of allotropic forms of hydrogen
Physics Nobel 1932
John von Neumann (1903 - 1957) (Budapest, 1925; Goettingen)
Hugo Steinhaus (1887 - 1972) (Goettingen, 1911)
Stefan Banach (1892 - 1945) (Jan Kazimierz U, Lvov, 1920+) Banach spaces (1923) Banach-Tarski paradox (1926)
Stanislav Ulam (1909 - 1984) (Polytech. Inst. Lvov, 1933) Monte Carlo methods (1930s)
David Hilbert (1862 - 1943) (Koenigsberg, 1884; Leipzig) Hilbert space (1930) ; Hilbert 23 problems (1900) ; transforms (1930)
Walter von Dyck (1856 - 1934) (Munich, 1879)
Martin W. Kutta (1867 - 1944) (Munich, 1901) Runge-Kutta method (1901)
Wolfgang Krull (1899 - 1971) (Frieburg, 1921; Goettingen) Krull-Schmidt theorem (1925)
Ludwig Bieberbach (1886 - 1982) (Goettingen, 1910) Bieberbach polynomials (1914) Bieberbach conjecture (1916)
Eliakim H. Moore (1862 - 1932) (Yale, 1885; Leipzig)
Oswald Veblen (1880 - 1960) (Chicago, 1903) proof of Jordan theorem (1905)
Robert L. Moore (1882 - 1974) (Chicago, 1905)
Harold S.M. Coxeter (1907 - 2003) (Cambridge, 1931; Princeton) Coxeter graph, Coxeter group, Coxeter matrix (1934) (terms coined 1968)
Henry F. Baker (1866 - 1956) (Cambridge, 1887; Goettingen)
John Arthur Todd (1908 - 1994) (Cambridge, 1930)
Roger Penrose (1931 -) (London, 1957) Penrose tiles, tesselations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David Hilbert
(1862 - 1943)
(Koenigsberg, 1884; Leipzig)
Hilbert space (1930) ;
Hilbert 23 problems (1900) ;
Hilbert transforms (1930)
Hermann Minkowski
(1864 - 1909)
(Koenigsberg, 1885)
Minkowski inequality
(1896)
Rikitaro Fujisawa
()
(Strasbourg, 1886;
Goettingen)
A. Emmy Noether
(1882 - 1935)
(Goettingen, 1908)
Otto Toeplitz
(1881 - 1940)
(Goettingen, 1913)
Gyorgy Polya
(1887 - 1985)
(Budapest, 1911+;
Goettingen)
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Richard Courant
(1887 - 1972)
(Goettingen, 1912+)
Erhardt Schmidt
(1876 - 1959)
(Goettingen, 1905)
Gram-Schmidt
orthogonalization
C. Hugo Hermann
Weyl (1885 - 1955)
(Goettingen, 1908)
Constantin Caratheodory
(1873 - 1950)
(Goettingen, 1904)
Caratheodory statement of
the second law of thermdynamics
Teiji Takagi
(1875 - 1960)
(Tokyo, 1897)
Pavel S. Alexandrov
(1896 - 1982)
(Moscow, 1913+;
Goettingen)
Alfred Haar
(1885 - 1933)
(Goettingen, 1909)
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groups (1932)
John von Neumann
(1903 - 1957)
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Monte Carlo methods (1930s) ,
proof of minimax theorem (1928)
Heinz Hopf
(1894 - 1971)
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Hopf knot
Ernst S. Fischer
(1875 - 1954)
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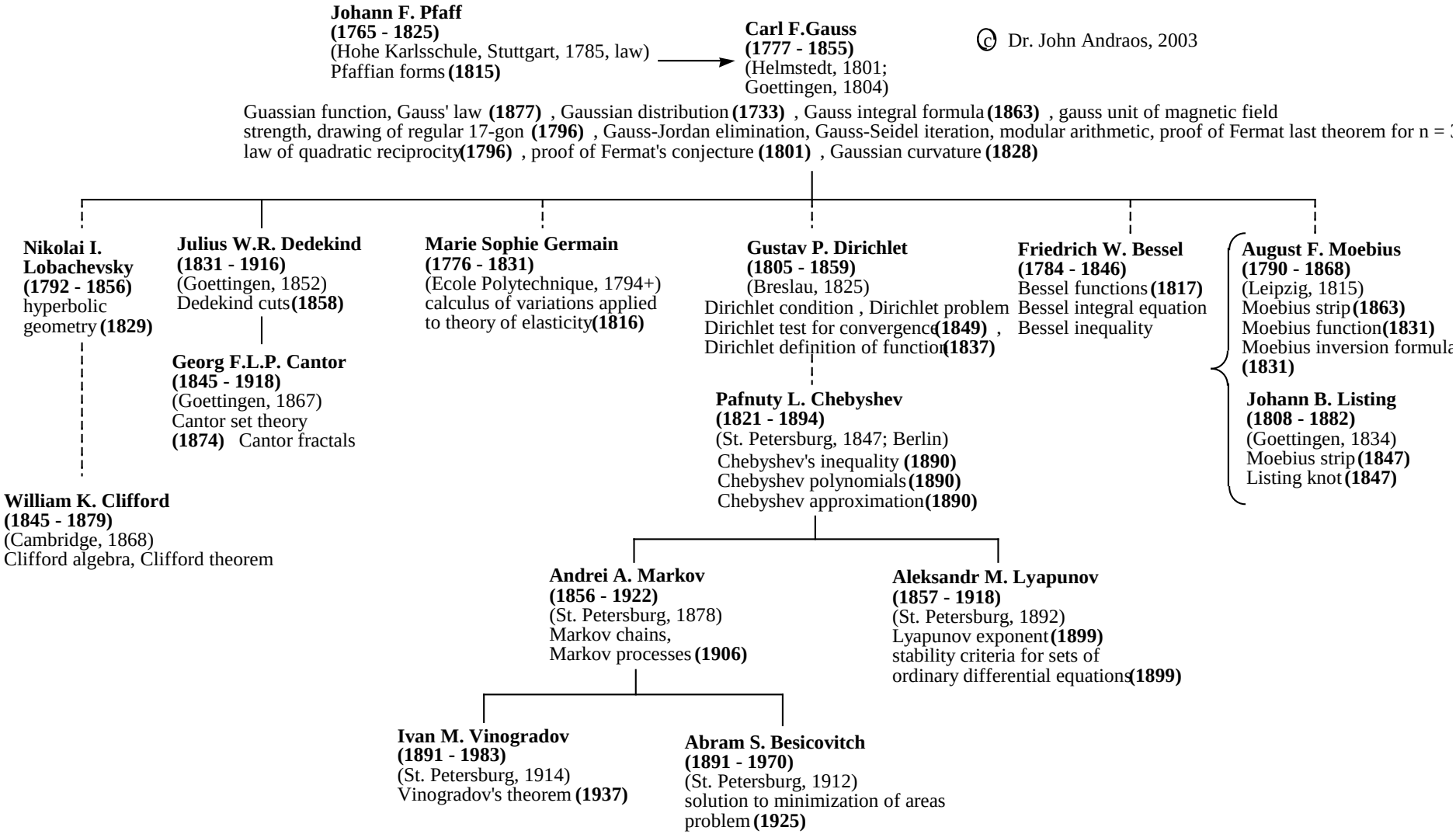
Riesz-Fischer theorem (1907)
Erich Hecke
(1887 - 1947)
(Goettingen, 1910)
Emanuel Lasker
(1868 - 1941)
(Erlangen, 1902)
Lasker ring (1905)
Kurt W.F. Reidemeister
(1893 - 1971)
(Hamburg, 1921)
Maxwell H.A. Newman
(1897 - 1984)
(Cambridge, 1921; Vienna)
Alan M. Turing
(1912 - 1954)
(Cambridge, 1935)
Turing machine (1936)


Johann F. Pfaff
(1765 - 1825)
(Hohe Karlsschule, Stuttgart, 1785, law)
Pfaffian forms (1815)
Carl F.Gauss
(1777 - 1855)
(Helmstedt, 1801;
Goettingen, 1804)
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Guassian function, Gauss' law (1877) , Gaussian distribution (1733) , Gauss integral formula (1863) , gauss unit of magnetic field
strength, drawing of regular 17-gon (1796) , Gauss-Jordan elimination, Gauss-Seidel iteration, modular arithmetic, proof of Fermat last theorem for n =
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Nikolai I. Lobachevsky
(1792 - 1856)
hyperbolic geometry (1829)
Julius W.R. Dedekind
(1831 - 1916)
(Goettingen, 1852)
Dedekind cuts (1858)
Marie Sophie Germain
(1776 - 1831)
(Ecole Polytechnique, 1794+)
calculus of variations applied to theory of elasticity (1816)
Gustav P. Dirichlet
(1805 - 1859)
(Breslau, 1825)
Dirichlet condition , Dirichlet problem
Dirichlet test for convergence (1849) ,
Dirichlet definition of function (1837)
Friedrich W. Bessel
(1784 - 1846)
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Bessel integral equation
Bessel inequality
August F. Moebius
(1790 - 1868)
(Leipzig, 1815)
Moebius strip (1863)
Moebius function (1831)
Moebius inversion formula
(1831)
Johann B. Listing
(1808 - 1882)
(Goettingen, 1834)
Moebius strip (1847)
Listing knot (1847)
Georg F.L.P. Cantor
(1845 - 1918)
(Goettingen, 1867)
Cantor set theory
(1874) Cantor fractals
William K. Clifford
(1845 - 1879)
(Cambridge, 1868)
Clifford algebra, Clifford theorem
Pafnuty L. Chebyshev
(1821 - 1894)
(St. Petersburg, 1847; Berlin)
Chebyshev's inequality (1890)
Chebyshev polynomials (1890)
Chebyshev approximation (1890)
Andrei A. Markov
(1856 - 1922)
(St. Petersburg, 1878)
Markov chains,
Markov processes (1906)
Aleksandr M. Lyapunov
(1857 - 1918)
(St. Petersburg, 1892)
Lyapunov exponent (1899)
stability criteria for sets of
ordinary differential equations (1899)
Ivan M. Vinogradov
(1891 - 1983)
(St. Petersburg, 1914)
Vinogradov's theorem (1937)
Abram S. Besicovitch
(1891 - 1970)
(St. Petersburg, 1912)
solution to minimization of areas
problem (1925)

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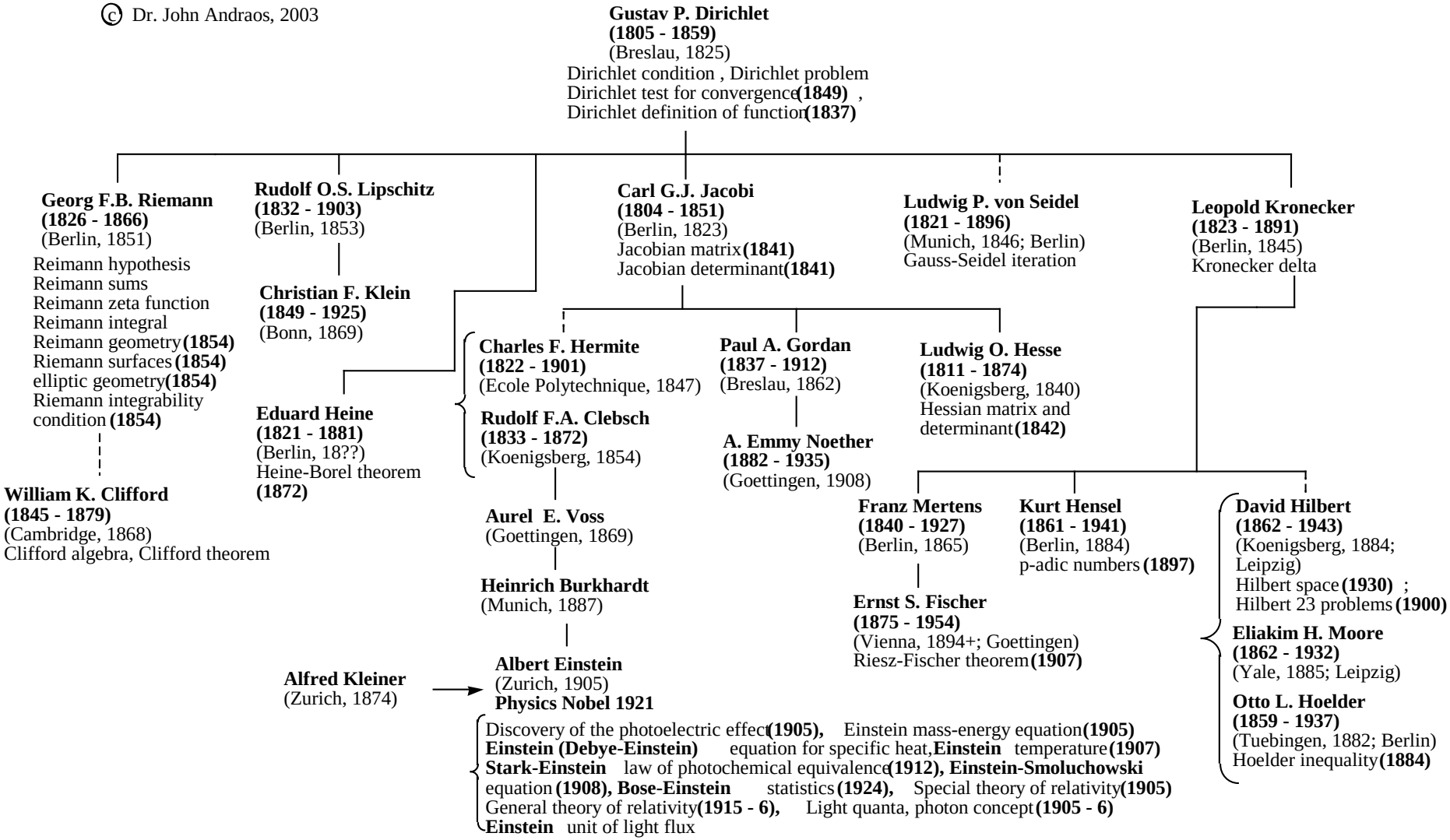

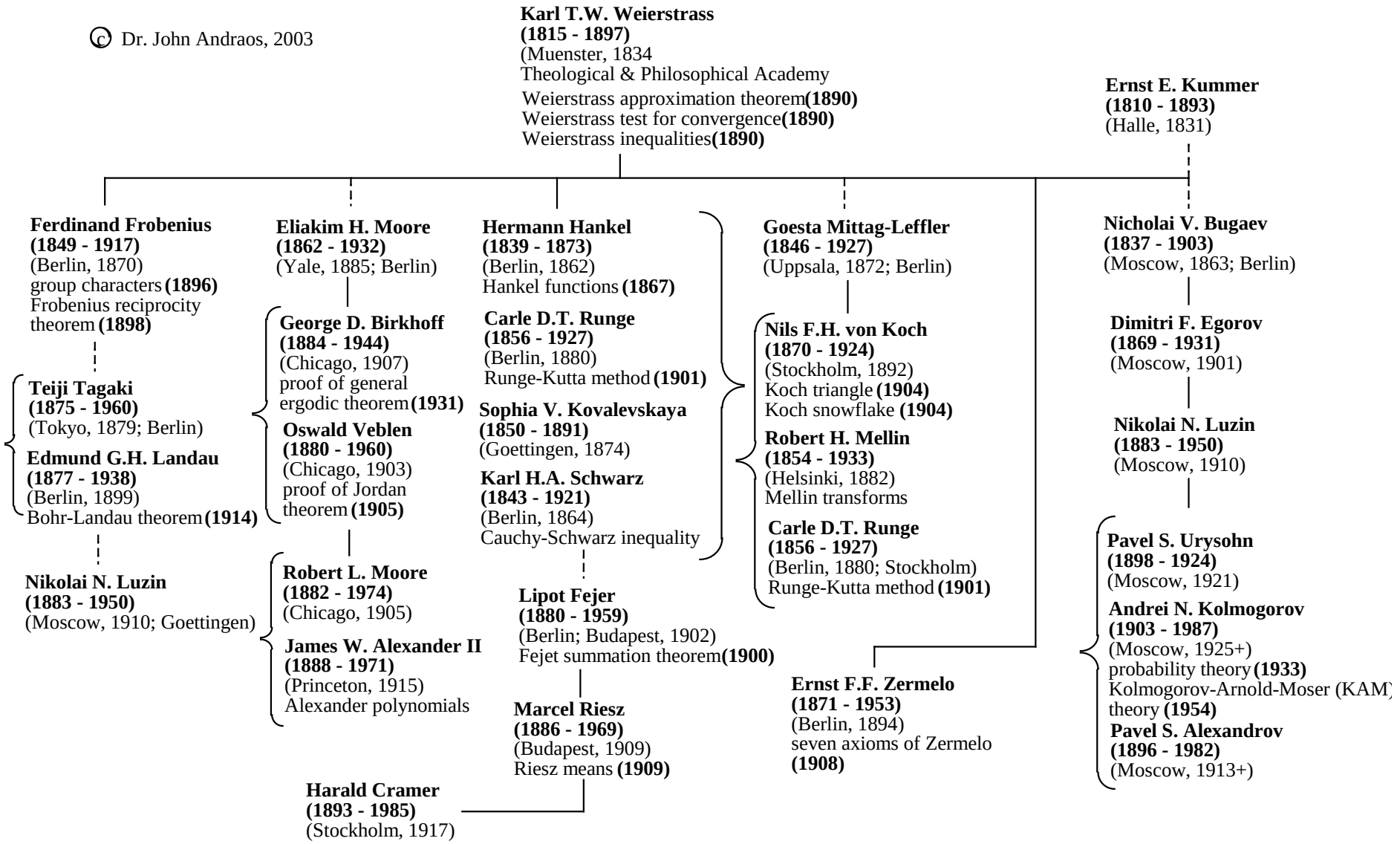
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Karl T.W. Weierstrass
(1815 - 1897)
(Muenster, 1834
Theological & Philosophical Academy
Weierstrass approximation theorem (1890)
Weierstrass test for convergence (1890)
Weierstrass inequalities (1890)
Ernst E. Kummer
(1810 - 1893)
(Halle, 1831)
Ferdinand Frobenius
(1849 - 1917)
(Berlin, 1870)
group characters (1896)
Frobenius reciprocity theorem (1898)
Eliakim H. Moore
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