

DRAMATIS PERSONAE: WHO DID WHAT WHEN

(for interest only – not examinable)

Daniel BERNOULLI (1700-1782) in 1769: Bernoulli-Laplace urn
Jakob BERNOULLI (1654-1705): *Ars conjectandi* in 1713 (posth.)
G. D. BIRKHOFF (1884-1944) in 1931: Ergodic theorem
Emile BOREL (1871-1956), thesis of 1893: Borel sets, Borel measure
George E. P. BOX (1919-): Box's dictum – all models are wrong; some models are useful
F. P. CANTELLI (1906-1985) in 1933: Glivenko-Cantelli theorem
Sydney CHAPMAN (1888-1970) in 1928: Chapman-Kolmogorov equation
Rudolf CLAUSIUS (1822-1888) in 1865: entropy; First and Second Laws of Thermodynamics
P. J. DANIELL (1889-1946) in 1918: Daniell-Kolmogorov theorem
Charles DARWIN (1809-1882) in 1859: *The Origin of Species*
Wolfgang DÖBLIN (= DOEBLIN) (1915-1940) in 1937: Markov chains
Monroe D. DONSKER (1925-1991) in 1951: Donsker's invariance principle
F. Y. EDGEWORTH (1845-1926) in 1883: Edgeworth's theorem (multinormal density)
D. F. EGOROV (1869-1931) in 1911: Egorov's theorem
Paul EHRENFEST (1880-1933) (with Tatyana Ehrenfest) in 1911: Ehrenfest urn
Paul ERDÖS (1913-1996) in 1949: Erdős-Feller-Pollard theorem
Willy FELLER (1906-1970) in 1949: Erdős-Feller-Pollard theorem
R. A. (Sir Ronald) FISHER (1890-1962): F -distribution in 1918; z -transformation in 1921; Fisher-Tippett theorem in 1928; Wright-Fisher model in 1930
Georg FROBENIUS (1849-1917) in 1908 and 1912: Perron-Frobenius theorem
Maurice FRÉCHET (1878-1973) in 1937: extreme-value theory
Sir Francis GALTON (1822-1911) in 1869: *Hereditary genius* and regression
V. I. GLIVENKO (1897-1940) in 1933: Glivenko-Cantelli theorem
B. V. GNEDENKO (1912-1995): extreme-value theory in 1943; Gnedenko & Kolmogorov in 1949 (Eng. tr. 1954)
Emil Julius GUMBEL (1891-1966) in 1935 and 1951: extreme-value theory
J. B. S. HALDANE (1892-1964): mathematical genetics
Theodore E. (Ted) HARRIS (1919-2005) in 1956: Harris-recurrent Markov

chains

A. Ya. KHINCHIN (= KHINTCHINE) (1984-1959): LIL in 1924; WLLN in 1925; ergodic theorem in 1933; Lévy-Khintchine formula in 1937

A. N. KOLMOGOROV (1903-87): Chapman-Kolmogorov equation in 1928; WLLN in 1928/29; infinite divisibility in 1932; Axiomatic Probability Theory – *Grundbegriffe* (SLLN, Daniell-Kolmogorov theorem) in 1933; Kolmogorov-Smirnov in 1933; reversibility of Markov chains in 1936

P. S. de LAPLACE in 1812: *Théorie Analytique des Probabilités*; Bernoulli-Laplace urn; Laplace transforms

Henri LEBESGUE (1875-1941), thesis of 1902: Lebesgue measure, Lebesgue integral

Paul LÉVY (1886-1971): WLLN and continuity theorem in 1925; Lévy-Khintchine formula in 1934; Lévy metric in 1937; Lévy processes (book of 1948/1965)

J. W. LINDEBERG (1876-1932) in 1922: CLT

A. A. MARKOV (1856-1922) in 1907: Markov chains (book, *Wahrscheinlichkeitsrechnung*, 2nd ed. 1908, 3rd ed. 1912)

Gregor MENDEL (1822-1884) in 1866: *Experiments on plant hybridization*

Paul-André MEYER (1934-2003): general theory of (stochastic) processes; stochastic integration; 1960s on

Richard von MISES (1883-1953) in 1947: von Mises calculus (differentiable statistical functions)

Abraham de MOIVRE (1667-1754) in 1738: *The Doctrine of Chances*

Vilfredo PARETO (1848-1923) in 1909: Pareto distribution of income (power-law tail)

Oskar PERRON (1880-1975) in 1907: Perron-Frobenius theorem

Harry POLLARD (d. 1985) in 1949: Erdős-Feller-Pollard theorem

G. F. B. RIEMANN (1826-66) in 1854: Riemann integral

Abe SKLAR (1915-): Sklar's theorem (on copulas) in 1958

A. V. SKOROHOD (1930-2011) in 1956: Skorohod representation theorem; Skorohod space $D[0, \infty)$; Skorohod topology on D

E. E. SLUTZKY (1880-1948) in 1925: Slutsky's theorem

N. V. SMIRNOV (1900-1966) in 1944: Kolmogorov-Smirnov.

James STIRLING (1692-1770) in 1730: Stirling's formula

L. H. C. TIPPETT (1902-1985) in 1928: Fisher-Tippett theorem

Waloddi WEIBULL (1887-1979) in 1939 and 1951: extreme-value theory

Sewall G. WRIGHT (1889-1988): Wright-Fisher model in 1931