

AMPÈRE, André. *Mémoires sur l'action mutuelle de deux courans électriques.* Paris, 1820. The rare separate printing of the founding paper of electrodynamics. (Dibner 62; Sparrow 8). €7,500

ARCHIMEDES. *Opera, quae quidem extant, omnia.* Basle, 1544. Editio princeps of the greatest classical work on mathematics and mechanics. A fine and fully complete copy in contemporary binding. (PMM 72; Evans 2; Horblit 5; Dibner 137). €62,000

ARCHIMEDES. *De iis quae vehuntur in aqua libri duo.* Bologna, 1565. First edition of Archimedes' two great books on hydrostatics. Bound with Commandino's pioneer treatise on centers of gravity, which influenced Cavalieri. A fine copy. (Honeyman 131; Bibliotheca Mechanica 78). €7,000

ARISTARCHUS. *De magnitudinibus, et distantis solis et lunae.* Pesaro, 1572. First complete edition and the sole extant work of the first proponent of a heliocentric system. This work is "the first attempt to determine astronomical distances and dimensions by mathematical deductions based upon a set of assumptions." (DSB). A magnificent copy bound in 17th century calf with crowned monogram of Gaston, Duke of Orléans. €14,000

ARRHENIUS, Svante. *On the Influence of the Carbonic Acid in the Air upon the Temperature of the Ground. [with:] Ueber die Wärmeabsorption durch Kohlensäure.* London/Leipzig, 1896/1901. True offprints (the printings issued by the Swedish Academy are often mistakenly identified as separates/offprints) of his two milestone papers on the greenhouse effect and global warming. (Parkinson 433). €11,000

AUMANN, Robert. *Existence of Competitive Equilibria in Markets with a Continuum of Traders.* Santa Monica, 1964. Rare pre-print of this famous paper included in Kuhn's *Classics in Game Theory*. In this work, later published in *Econometrica* 1966, Aumann showed the existence of equilibria in his model of markets with 'perfect competition' (i.e., with a continuum of participants). Aumann's model forms a cornerstone in modern economic analysis. Fine, original wrappers. €3,000

BARDEEN; COOPER; SCHRIEFER. *Theory of Superconductivity.* Lancaster, 1957. Very rare offprint of the BCS-paper. Bardeen was awarded his second Nobel Prize in Physics for this work. €10,000

BERNOULLI, Jacob. *Ars conjectandi, opus posthumum. Accedit Tractatus de seriebus infinitis, et Epistola Gallicè scripta De ludo pilae reticularis.* Basel, 1713. First edition of the "establishment of the fundamental principles of the calculus of probabilities" (PMM 179; Horblit 12; Evans 8). €12,000

BERNOULLI, Daniel. *Exercitationes quaedam mathematicae.* Venice, 1724. His first mathematical publication. As a result of the success of this treatise, on differential equations and the physics of water flow, Daniel was appointed to the Academy of Sciences in St. Petersburg. A beautiful copy on thick paper, contemporary vellum. Rare. €5,200

BECQUEREL, Antoine Henri. *Recherches sur une propriété nouvelle de la matière. Activité spontanée ou radioactivité de la matière.* Paris, 1903. (Dibner 163; PMM 393). Fine, original wrappers. €2,500

BESSEL, F.W. *Fundamenta astronomiae.* Königsberg, 1818. A fine copy of this work which "constitutes a milestone in the history of astronomical observations, for until then positions of stars could not be given with comparable accuracy: through Bessel's work, Bradley's observations were made to mark the beginning of modern astrometry" (DSB). (Norman 226; Honeyman 311). €2,200

BETTINI, Mario. *Aerarium Philosophiae Mathematicae.* Bologna, 1648. The Macclesfield copy, printed on thick paper, of the first edition of this compendious scholastic mathematical work by the Jesuit mathematician Mario Bettini (1582-1657), encompassing all the major fields of mathematics, but paying special attention to geometry. €15,000

BOHR, Niels. *On the Quantum Theory of Line-Spectra, I-III.* Copenhagen, 1918-22. Nobel laureate P.W. Bridgeman's annotated copy. Besides Bohr's derivation of the Balmer formula (1913) this work, in which he first formulated his 'correspondence principle', is by many considered to be his greatest contribution to physics. A fine set in wrappers. €6,500

BUSH, Vannevar. *As We May Think.* Boston, 1945. Extremely rare offprint of Bush's celebrated paper credited for originating the idea of hypertext and, by extension, providing many of the theoretical underpinnings for the World Wide Web. (OOC 519: ordinary journal issue). We can locate no copy of the offprint issue in any library or other collection. Fine, self-wrappers. €9,500

CASATI, Paolo. *Terra Machinis Mota.* Rome, 1655. Very rare first edition of this important astronomical work written in the form of a dialogue between Galileo, Paul Guldin, and Marin Mersenne on various intellectual problems of cosmology, geography, astronomy and geodesy. Contemporary limp vellum. €18,500

CAVALIERI, Bonaventura. *Exercitationes geometricae sex.* Bologna, 1647. Rare first edition of Cavalieri's second work on integration methods, a sequel to and elaboration of his 'Geometria Indivisibilibus' (1635). €7,500

COMMANDINO, Frederigo. *Ptolomaei Planisphaerium. Jordani Planisphaerium. Federici Commandini ... Commentarius.* Venice, 1558. First edition of Commandino's commentary on the *Planisphere* of Ptolemy. Commandino's introductory text represents "the first example of an entirely geometrical and rigorous approach to perspective." (Andersen 141; Honeyman 2557). A fine copy, contemporary vellum. €6,500

COURNOT, Antoine-Augustin. *Recherches sur les Principes Mathématiques de la Théorie des Richesses.* Paris, 1838. First edition of the founding work of mathematical economics. "If a symbolic date were to be chosen for the birth of mathematical economics, our profession, in rare unanimous agreement, would select 1838, the year in which Augustin Cournot published his *Recherches*". (Nobel lecture of Gerard Debreu). A very good copy with the often lacking folding plate. €9,500

DANTZIG, George. *Linear Programming: Invited paper presented before the Symposium on Numerical Methods July, 1948, Los Angeles, California.* Extremely rare mimeographed typescript of the paper (published three years later) in which Dantzig gave the first general description of linear programming and his famous 'simplex' method - declared as one of the most important algorithms of the 20th century. €5,500

DIOPHANTUS. *Arithmeticonum libri sex, et de numeris multangulis liber unus.* Paris, 1621. Editio princeps of the first systematic treatise on algebra. Parts of the text had been published by Xylander in Latin translation in 1575. Here the full Greek text appears for the first time, with parallel Latin text and the commentaries by Bachet. It was this edition that Fermat worked with and in the margin of his copy scribbled his famous last theorem. Contemporary calf. (Honeyman 891). €11,000

EINSTEIN, Albert. *Zur Elektrodynamik bewegter Körper; Über einen die Erzeugung und Verwandlung des Lichtes betreffenden heuristischen Gesichtspunkt; Über die von der molekularkinetischen Theorie der Wärme geforderte Bewegung von in ruhenden Flüssigkeiten suspendierten Teilchen.* *Annalen der Physik, vol 17.* Leipzig, 1905. "One of the most remarkable volumes in the whole scientific literature. It contains three papers by Einstein, each dealing with a different subject and each today acknowledged to be a masterpiece, and the starting point of a new branch of physics." (Max Born). (Dibner 167; Horblit 26b). €17,500

EINSTEIN; PODOLSKY; ROSEN. *Can Quantum-Mechanical Description of Physical Reality Be Considered Complete?* Lancaster, 1935. Very rare offprint of the famous 'EPR paper' - one of the most discussed and debated papers of modern physics, and the basis for the fields of quantum computing and quantum cryptography. €15,000

EUCLID. *Das sibend, acht vnd neünt Buch, des hochberühmbten Mathematici Euclidis Megarensis.* Augsburg, 1555. Very rare first appearance of any part of Euclid's work in German, and one of the earliest vernacular editions (preceded only by Italian translations). A fine copy with a distinguished provenance. €22,000

EULER, Leonhard. *Theoria Motus Lunae Exhibens Omnes Eius Inaequalitates.* St Petersburg, 1753. Rare first edition of Euler's so-called first lunar theory. (Eneström 187; Honeyman 1068). €12,000

EULER, Leonhard. *Vollständige Anleitung zur Algebra.* St. Petersburg, 1770. First edition of Euler's great textbook of algebra in its language of composition, preceded only by an extremely rare Russian translation published in 1768-9 by two of Euler's students. (Norman 735). €7,500

GALILEI, Galileo. *Opere, I-III.* Florence, 1718. Second edition of the works of Galileo, edited by Tommaso Buonaventura and Benedetto Bresciani. Volumes 1 and 2 are a reprint of the Bologna edition of 1655-1656; volume 3 is made up of previously unpublished material. (Cinti 170; Honeyman 1419). €6,000

GAUSS, C.F. *Theoria Motus Corporum Coelestium in Sectionibus Conicis Solem Ambientium.* Hamburg, 1809. In this work "Gauss systematically developed his methods of orbit calculation, including the theory and use of least squares." Together with his 'Disquisitiones' this work "established his reputation as a mathematical and scientific genius of the first order." (DSB). (Dibner 114n; Norman 879; Sparrow 81). €4,000

GÖDEL, Kurt. *Ergebnisse eines mathematischen Kolloquiums. I-VII.* Leipzig, 1931-36. A mint set in wrappers of these rare proceedings from Karl Menger's colloquium, which was modeled on the Vienna Circle. Gödel coedited these seven volumes and contributed with fourteen important papers and remarks on the foundations of logic and mathematics. €8,500

GREGORY, David. *Astronomiae Physicae & Geometricae Elementa.* Oxford, 1702. The first text book of astronomy based on Newtonian principles, and the first printings of Newton's lunar theory and his 'classical scholia'. A fine copy, contemporary calf. (Babson 71; Gray 87). €3,800

HAMILTON, William. *Lectures on Quaternions.* Dublin, 1853. Presentation copy, inscribed by Hamilton. "Quaternions were the first noncommutative number system to be investigated in detail, and Hamilton's discovery that a consistent and useful system of algebra could be constructed without obeisance to the commutative law of multiplication was comparable in importance to the invention of non-Euclidean geometry." (PMM 334). €6,500

HARSANYI, John Charles. *Games with Incomplete Information Played by "Bayesian" Players, I-III.* Berkeley, 1968. Offprints of the papers for which Harsanyi was awarded the Nobel Prize in Economics in 1994 together with John Nash and Reinhard Selten. "Prior to Harsanyi's path breaking three-part article little progress had been made in analyzing games of incomplete information. Harsanyi's conceptual breakthrough was to recognize that it is possible to embed a game of incomplete information into a larger game of complete information and use it to determine equilibrium behavior in the original game." (DSB). €2,800

HILBERT, David. *Neubegründung der Mathematik. [with:] Über das Unendliche.* Hamurg/Berlin, 1922/26. Author's presentation offprint issue of the paper in which Hilbert first introduced his program for the foundations of mathematics, i.e., the *Hilbert Program*. Together with the most detailed exposition of his scheme. €12,000

HODGKIN, Dorothy. *Structure of Vitamin B₁₂* [with:] *The X-ray Crystallographic Investigation of the Structure of Penicillin* [with: six other offprints]. London, 1956-57/1949. Inscribed offprints, to crystallographer Jack Duntiz, of her most important papers, in which she solved the molecular structure of penicillin and vitamin B₁₂, the last which revealed the existence of a hitherto-unsuspected chemical grouping, the corrin nucleus. Lawrence Bragg compared these achievements with 'breaking the sound barrier', and in 1964 she received the Nobel Prize for this work. €5,000

HORROCKS, Jeremiah. *Opera Posthuma [Opuscula Astronomica]*. London, 1672-73. Rare first printing of the works by the 'Father of English Astronomy'. Horrocks (1618-1641) was - despite his lamentably early death at the age of 22 - arguably the most important English astronomer before Newton, and his work is of extraordinary interest in the history of 17th century science. A fine copy, contemporary calf. (Honeyman 1705). €26,000

HUYGENS, Christian. *Traité de Lumière.* Leyden, 1690. First edition of Huygen's pathbreaking exposition of his wave theory of light. A very good copy, contemporary vellum. (Horblit 54; Dibner 146; Evans 32). €36,000

KEPLER, Johannes. *Tabulae manuales logarithmicae ad calculum astronomicum, in specie Tabb. Rudolphinarum compendiose tractandum mire utiles.* Strasbourg, 1700. Rare second edition (the first obtainable) of the logarithmic tables used in calculating the celebrated Rudolphine Tables. A fine copy, contemporary vellum with clasps. (Caspar 99). €12,000

LAGRANGE, Joseph Louis. *Mécanique analytique.* Paris, 1788. 'Perhaps the most beautiful mathematical treatise in existence'. A fine fresh copy in contemporary vellum. (Horblit 61; Evans 10; Dibner 112). €14,000

LAPLACE, Pierre Simon. *Théorie analytique des probabilités.* Paris, 1812. First edition of the founding work of probability theory. A very good copy. Rare. (Evans 12; Honeyman 1923). €26,000

LEIBNIZ, Gottfried. *Nova Methodus pro Maximis et Minimis.* Leipzig, 1684. First announcement of Leibniz' discovery of the differential calculus. A magnificent copy printed on thick paper, contemporary vellum. (PMM 160; Evans 7; Horblit 66a). €18,000

LEIBNIZ, Gottfried. *Explication de l'arithmétique binaire.* Paris, 1703/1705. First edition. First appearance of his famous paper on binary arithmetic. €12,000

MACLAURIN, Colin. *A Treatise of Fluxions. In Two Books.* Edinburgh, 1742. First edition of "the earliest logical and systematic publication of the Newtonian methods. It stood as a model of rigor until the appearance of Cauchy's Cours d'Analyse in 1821." (DSB). A fresh and large copy in fine contemporary English calf bindings. (Norman 1408; Honeyman 2084). €10,000

MAUROLICO, Francesco. *Theodosii Sphaericorum Elementorum Libri III.* Messina, 1558. "Excessively rare" (Sotheran, 1918) first printing of Maurolico's Latin translations of works on spherical geometry by Euclid, Theodosius, Menelaus, and Autolykus, with his important commentaries, and a work of his own *De Sphaera Sermo*, and the first printed table of values for the trigonometric function of the secant. Fine, wide margins, contemporary vellum. Of great rarity on the market. €30,000

MAUROLICO, Francesco. *Opuscula mathematica; Arithmeticon libri duo.* Venice, 1575. First and only edition (Rara Arithmetica) of the first clear statement of the principle of mathematical induction. Fine, contemporary limp vellum. (Honeyman 2182). €15,000

MENGOLI, Pietro. *Geometriae Speciose Elementa.* Bologna, 1659. A fine copy, from the library of Riccardi, of this scarce and important work on limits of geometrical figures. In this work Mengoli "set up the basic rules of the calculus thirty years before Newton and Leibniz. Both of these were influenced by his contribution, in the case of Leibniz the influence was direct as he read Mengoli's work while in the case of Newton he knew of it indirectly through studying Wallis." (St. Andrews). Rare. €25,000

METROPOLIS, Nicholas & ULAM, Stanislaw. *The Monte Carlo Method.* Washington, 1949. Very rare proof typescript of the first public account of the Monte Carlo method originally used in 1947, at Los Alamos, to simulate detonation of the hydrogen bomb using the first electronic computer ENIAC. It has since then become one of the most successfully applied techniques of statistical sampling with broad applications in the fields of quantum physics, economics, chemistry, etc. €2,600

MOORE, Jonas. *A New Systeme of the Mathematicks.* London, 1681. First edition of Moore's principal work, incorporating one of the three main works of his protégé, John Flamsteed, and a treatise on geography by Edmund Halley illustrated with 61 maps including nine of America. A fine and fully complete copy, contemporary calf. Rare. €24,000

MONTMORT, Pierre Rémond de. *Essay d'Analyse sur les Jeux de Hazard.* Paris, 1708. Rare first edition of the first work entirely devoted to the calculation of probabilities. Fine copy in armorial binding of Duc de Luynes. €11,500

MYDORGE, Claude. *Prodromi catoptricum et dioptricum.* Paris, 1639. First edition of all four books (books I & II had been published in 1631) of Mydorge's work on conic sections, intended to provide the geometrical basis for the study of optics. €12,000

NAPIER, John. *Logarithmorum Canonis Descriptio; Mirifici Logarithmorum Canonis construction.* Lyons, 1620. Second (first obtainable) edition of his 'Constructio' (Horblit 77b, 1619), with the first continental edition of the 'Descriptio' (Horblit 77a, 1614) - "The work which in the history of British science can be placed as second only to Newton's Principia" (Evans). €8,000

NEWTON, Isaac. *The Method of Fluxions and Infinite Series.* London, 1736. First edition of Newton's *Methodus Fluxionum*, originally prepared in 1671, but remained unpublished until this English translation by John Colson. (Babson 171; Gray 232). Contemporary calf. €17,500

RECORDE, Robert. *The Grounde of Artes: teaching the Work and practise of Arithmetike.* London, 1579. Very rare early edition, edited by John Dee, of Recorde's first work (the rarest of them all). A fine copy in contemporary calf. €20,000

RÖNTGEN, Wilhelm. *Ueber eine neue Art von Strahlen (Vorläufige Mittheilung). 1895* [with:] *Eine neue Art von Strahlen. II. Mittheilung. 1896* [with:] *Weitere Beobachtungen über die Eigenschaften der X-Strahlen (Dritte Mittheilung). 1897.* First two as offprints, the third a contemporary extract. Complete collection of Röntgen's three papers announcing his discoveries on X-Rays. (Norman 1841, 1842, and GM 2683). First two in original wrappers, the third in contemporary plain wrappers. €15,000

ROSENBLATT, Frank. *The Perceptron: A Perceiving and Recognizing Automaton (Project PARA). Report No. 85-460-1.* New York, 1957. The very rare research report (OCLC locates just one copy, Hannover) in which Rosenblatt first described his pioneering work on artificial intelligence, and which pre-dates his paper published in *The Psychological Review* with nearly two years. (OOC 870, later journal paper). €5,000

SHANNON, Claude. *A Mathematical Theory of Communication.* 1958. Rare offprint of the founding paper of information theory. (OOC 880). Original wrappers. €10,000

SODDY, Frederick. *The Interpretation of the Atom.* London, 1932. First edition, author's copy, heavily annotated by Soddy throughout for a projected revised edition entitled *The Atomics*. Signed and dated 1947 by Soddy. €6,500

TORRICELLI, Evangelista. *Opera geometrica.* Florence, 1644. First edition of this compilation of Torricelli's most important contributions to mathematics and physics, the only work published in his lifetime. A fine copy in the original publisher's interim boards. (Norman 2086; Cinti 114). €14,000

VOLTA, Alessandro. *On the Electricity excited by the mere Contact of conducting Substances of different kinds.* London: W. Bulmer & Co. for Peter Elmsley, 1800. The first announcement of the voltaic 'pile', or electric battery. (PMM 255; Horblit 37b; Evans 35; Sparrow 193). €8,250

VON NEUMANN, John. & MORGENSTERN, Oskar. *Theory of Games and Economic Behavior.* Princeton, 1944. The copy of distinguished mathematician Andrew M. Gleason who (together with Montgomery and Zippin) resolved Hilbert's Fifth Problem. (OOC 953). Without d.j. €3,500

VIETA, Franciscus. *Opera Mathematica.* Leiden, 1646. First collected edition, Viète's single works being practically unobtainable in original editions. "All his books were published privately at his own expense for distribution to his friends and are therefore notably rare." (PMM). Fine, contemporary calf. €8,000

WALD, Abraham. & H.A. Freeman. *Sequential Analysis of Statistical Data: Theory [with] Sequential Tests of Statistical Significance [with] Sequential Analysis of Statistical Data: Applications.* Washington, 1943-1944. All three first editions, first issue. €7,200

WATSON, J. & CRICK, F. *Molecular Structure of Nucleic Acids: A Structure for Deoxyribose Nucleic Acid.* St. Albans: Fisher, Knight & Co., 1953. The three-paper offprint signed by Wilkins, Wilson, and Gosling. (Horblit/Medicine 99). €18,000

WILKINS, John. *Mercury, or the secret and swift Messenger.* London: Norton, 1651. First edition of the most important of early English works on cryptography. Contemporary calf. €4,500