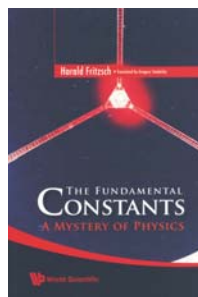


in which questions are posed and answered. In Fritzsche's book, two of the three characters are based on real people—Isaac Newton and Albert Einstein—and the third is the purely fictitious modern-day particle physicist Adrian Haller. The three scientists mainly hold their discussions at the Athenaeum faculty club on Caltech's campus, but also have occasion to converse during excursions to SLAC and other sites in California. The changing settings serve to illustrate the life of modern physicists and some of the more charming environments associated with their work.

The Fundamental Constants is a translation of Fritzsche's *Das Absolut Unveränderliche* (Piper, 2005). As one of the founders of quantum chromodynamics and the standard model of particle physics, Fritzsche is a well-qualified author. Although the book's theme is centered about the constants of nature, the fictitious discourse also allows a present-day physicist to expound on the great advances of the past half century in response to questions posed by two icons of classical physics. The book delves deeply into the full history and elegance of modern physical theory, including quantum field theory, quantum electrodynamics, quantum chromodynamics, grand unified theories, supersymmetry, and string theory. It also demonstrates the role of the scientific method in those developments.

I liked the book's discussion of the fine-structure constant, from which it launches into the foundations of quantum electrodynamics. The historical anecdotes were interesting and accurate; some of them even describe Fritzsche's encounters with Richard Feynman and others involved in the development of modern quantum field theory. The sections about nuclear physics and the discovery of quarks and quantum chromodynamics were insightful, as expected given the author's credentials. Fritzsche covers the development of modern particle accelerators and explores the rationale for the Large Hadron Collider at CERN, which was under construction when the original German-language book came out. He includes a summary of the standard model and the Higgs mechanism; his discussions of the motivations for supersymmetry, string theory, and other grand unified theories are all quite good, as are his comments on the Big Bang and the time variation of the fundamental constants. I particularly liked the description, suitable for lay



readers, of abelian versus non-abelian gauge theories. In fact, I plan to adapt some of Fritzsche's pedagogy for my own courses.

Much as I enjoyed the book, I found a few parts slightly irritating. Einstein and Newton are sometimes portrayed as bumbling fools waiting to be enlightened by particle physicist Haller. In parts, the fictional Einstein needs an explanation of early advances in quantum physics that the real Einstein would surely have understood. Moreover, Einstein is not given enough credit for having moved on to higher dimensional theories of gravity; modern string theories suggest that his intuition was actually remarkably good. Also, the criticism in chapter 12 of theoretical astrophysics and astronomy is completely inappropriate. Perhaps some of those stylistic aspects should be passed off as understandable bravado from one whose viewpoint is that of a modern particle physicist. In any event, they do not significantly detract from the book's overall entertaining and informative nature.

Although written by an expert, *The Fundamental Constants* is surprisingly accessible, and I would recommend it to anyone with an interest in the subtleties of modern physics. For the novice, the dialog device effectively communicates intuitive arguments in an entertaining way. Seasoned physicists, too, particularly those teaching introductory courses on modern physics, will find some of its explanations and insights quite useful.

Grant Mathews

*University of Notre Dame
Notre Dame, Indiana*



acoustics

Auditory and Visual Sensations. Y. Ando; P. Cariani, ed. Springer, New York, 2009. \$159.00

(344 pp.). ISBN 978-1-4419-0171-2

astronomy and astrophysics

Annual Review of Astronomy and Astrophysics. Vol. 47. R. Blandford, J. Kormendy, E. van Dishoeck, eds. Annual Reviews, Palo Alto, CA, 2009. \$214.00 (630 pp.). ISBN 978-0-8243-0947-3

The Biggest, Baddest, Coolest Stars. D. G. Luttermoser, B. J. Smith, R. E. Stencel, eds. *Astronomical Society of the Pacific Conference Series* 412. Proc. wksp., Johnson

City, TN, July 2007. Astronomical Society of the Pacific, San Francisco, 2009. \$77.00 (263 pp.). ISBN 978-1-58381-704-9

The Caldwell Objects and How to Observe Them. M. Mobberley. *Astronomers' Observing Guides*. Springer, New York, 2009. \$34.95 paper (273 pp.). ISBN 978-1-4419-0325-9

The Low-Frequency Radio Universe: An Event Commemorating the Birth Centenary of Dr. Homi J. Bhabha. D. J. Saikia, D. A. Green, Y. Gupta, T. Venturi, eds. *Astronomical Society of the Pacific Conference Series* 407. Proc. conf., Pune, India, Dec. 2008. Astronomical Society of the Pacific, San Francisco, 2009. \$77.00 (457 pp.). ISBN 978-1-58381-694-3

Recent Directions in Astrophysical Quantitative Spectroscopy and Radiation Hydrodynamics. I. Hubeny, J. M. Stone, K. MacGregor, K. Werner, eds. *AIP Conference Proceedings* 1171. Proc. conf., Boulder, CO, Mar.–Apr. 2009. AIP, Melville, NY, 2009. \$159.00 paper (368 pp.). ISBN 978-0-7354-0710-7

The Science and Art of Using Telescopes. P. Pugh. *Patrick Moore's Practical Astronomy Series*. Springer, New York, 2009. \$34.95 paper (411 pp.). ISBN 978-0-387-76469-6

A Spectroscopic Atlas of Bright Stars: A Pocket Field Guide. J. Martin. *Astronomer's Pocket Field Guide*. Springer, New York, 2010. \$29.95 paper (205 pp.). ISBN 978-1-4419-0704-2

The Starburst–AGN Connection. W. Wang, Z. Yang, Z. Luo, Z. Chen, eds. *Astronomical Society of the Pacific Conference Series* 408. Proc. wksp., Shanghai, China, Oct. 2008. Astronomical Society of the Pacific, San Francisco, 2009. \$77.00 (474 pp.). ISBN 978-1-58381-696-7

Starlight: An Introduction to Stellar Physics for Amateurs. K. Robinson. *Patrick Moore's Practical Astronomy Series*. Springer, New York, 2009. \$34.95 paper (277 pp.). ISBN 978-1-4419-0707-3

Stellar Pulsation: Challenges for Theory and Observation. J. A. Guzik, P. A. Bradley, eds. *AIP Conference Proceedings* 1170. Proc. conf., Santa Fe, NM, May–June 2009. AIP, Melville, NY, 2009. \$319.00 (645 pp.). ISBN 978-0-7354-0707-7

Viewing the Constellations with Binoculars: 250+ Wonderful Sky Objects to See and Explore. B. Kambič. *Patrick Moore's Practical Astronomy Series*. Springer, New York, 2010. \$39.95 paper (518 pp.). ISBN 978-0-387-85354-3

atomic and molecular physics

Charged Particle Traps II: Applications. G. Werth, V. N. Gheorghe, F. G. Major. *Springer Series on Atomic, Optical, and Plasma Physics* 54. Springer, Berlin, 2009. \$179.00 (275 pp.). ISBN 978-3-540-92260-5

biological and medical physics

Glimpses of Creatures in Their Physical Worlds. S. Vogel. Princeton U. Press, Princeton, NJ, 2009. \$75.00, \$35.00 *paper* (302 pp.). ISBN 978-0-691-13806-0, ISBN 978-0-691-13807-7 *paper*

Methods in Modern Biophysics. 3rd ed. B. Nölting. Springer, Berlin, 2009. \$69.95 *paper* (273 pp.). ISBN 978-3-642-03021-5

Multiscale Phenomena in Biology. R. M. Sinclair, K. M. Stiefel, eds. *AIP Conference Proceedings* 1167. Proc. conf., Okinawa, Japan, Nov. 2008. AIP, Melville, NY, 2009. \$89.00 (123 pp.). ISBN 978-0-7354-0704-6

Radiotherapy and Brachytherapy. Y. Lemoigne, A. Caner, eds. *NATO Science for Peace and Security Series B: Physics and Biophysics*. Proc. inst., Archamps, France, Nov. 2007. Springer, Dordrecht, the Netherlands, 2009. \$189.00, \$89.95 *paper* (256 pp.). ISBN 978-90-481-3095-5, ISBN 978-90-481-3096-2 *paper*

chemical physics

The Chemistry of Inkjet Inks. S. Magdassi, ed. World Scientific, Hackensack, NJ, 2010. \$95.00 (345 pp.). ISBN 978-981-281-821-8

Molecular Theory of Water and Aqueous Solutions. Part 1: Understanding Water. A. Ben-Naim. World Scientific, Hackensack, NJ, 2009. \$98.00 (629 pp.). ISBN 978-981-283-760-8

The Nature of the Hydrogen Bond: Outline of a Comprehensive Hydrogen Bond Theory. G. Gilli, P. Gilli. *IUCr Monographs on Crystallography* 23. Oxford U. Press, New York, 2009. \$130.00 (317 pp.). ISBN 978-0-19-955896-4

Physical Chemistry in Depth. J. K. Fink. Springer, Heidelberg, Germany, 2009. \$99.00 (588 pp.). ISBN 978-3-642-01013-2

Understanding Chemistry. C. N. R. Rao. World Scientific, Hackensack, NJ, 2010. \$38.00 *paper* (300 pp.). ISBN 978-981-283-603-8

computers and computational physics

Computational Methods for Sensor Material Selection. M. A. Ryan et al., eds. *Integrated Analytical Systems*. Springer, New York, 2009. \$159.00 (319 pp.). ISBN 978-0-387-73714-0

Fuzzy Information and Engineering. Vol. 2. B. Cao, T.-F. Li, C.-Y. Zhang, eds. *Advances in Intelligent and Soft Computing* 62. Proc. conf., Chongqing, China, Sept. 2009. Springer, Berlin, 2009. \$399.00 *paper* (1754 pp.). ISBN 978-3-642-03663-7

Perspectives in Computation. R. Geroch. *Chicago Lectures in Physics*. U. Chicago Press, Chicago, 2009. \$75.00, \$25.00 *paper* (200 pp.). ISBN 978-0-226-28854-3, ISBN 978-0-226-28855-0 *paper*

condensed-matter physics

Electron Spin Resonance and Related Phenomena in Low-Dimensional Structures. M. Fanciulli, ed. *Topics in Applied Physics* 115. Springer, Berlin, 2009. \$169.00 (261 pp.). ISBN 978-3-540-79364-9

Many-Body Theory of Molecules, Clusters, and Condensed Phases. N. H. March, G. G. N. Angilella, eds. *World Scientific Series in 20th Century Physics* 41. World Scientific, Hackensack, NJ, 2010. \$158.00 (882 pp.). ISBN 978-981-4271-77-6

Theory of Fluctuations in Superconductors. Rev. ed. A. Larkin, A. Varlamov. *Inter-*

national Series of Monographs on Physics 127. Oxford U. Press, New York, 2009 [2005]. \$70.00 *paper* (418 pp.). ISBN 978-0-19-956483-5

Theory of Nonequilibrium Superconductivity. N. B. Kopnin. *International Series of Monographs on Physics* 110. Oxford U. Press, New York, 2009 [2001, reissued]. \$65.00 *paper* (328 pp.). ISBN 978-0-19-956642-6

cosmology and relativity

Cosmology Across Cultures. J. A. Rubiño-Martín, J. A. Belmonte, F. Prada, A. Alberdi, eds. *Astronomical Society of the*

Take a Closer Look...

- 100, 200, 300 amu models
- Sensitivity to 5×10^{-14} Torr
- Better than 1/2 amu resolution
- Dual ThO₂/Ir filament
- Long-lasting electron multiplier
- 6 decades of dynamic range
- Windows software

RGA's starting at \$3750

Residual Gas Analyzers from SRS are designed to handle the toughest environments from basic research to semiconductor process monitoring. Thousands of SRS RGAs are in use worldwide, and have earned us a reputation for producing quality vacuum instrumentation at reasonable prices.

Our RGAs have greater dynamic range, higher resolution and better linearity than competitive models, and are easier to use. In addition, a dual ThO₂/Ir filament and a unique four channel electron multiplier give SRS RGAs a longer lifetime than other designs.

Simply put, SRS RGAs offer better performance and value than any other system.



Stanford Research Systems
Phone (408) 744-9040
Fax (408) 744-9049
email: info@thinkSRS.com
www.thinkSRS.com

Pacific Conference Series 409. Proc. wksp., Granada, Spain, Sept. 2008. Astronomical Society of the Pacific, San Francisco, 2009. \$77.00 (500 pp.). ISBN 978-1-58381-698-1

Eternal Inflation. S. Winitzki. World Scientific, Hackensack, NJ, 2009. \$88.00 (218 pp.). ISBN 978-981-283-239-9

The Future of Theoretical Physics and Cosmology: Celebrating Stephen Hawking's Contributions to Physics. G. W. Gibbons, E. P. S. Shellard, S. J. Rankin, eds. Cambridge U. Press, New York, 2009 [2003, reissued]. \$55.00 *paper* (879 pp.). ISBN 978-0-521-14408-7

Sources and Detection of Dark Matter and Dark Energy in the Universe. D. B. Cline, ed. *AIP Conference Proceedings* 1166. Proc. symp., Marina del Rey, CA, Feb. 2008. AIP, Melville, NY, 2009. \$145.00 (263 pp.). ISBN 978-0-7354-0703-9

device physics

Fundamentals of Modern VLSI Devices. 2nd ed. Y. Taur, T. H. Ning. Cambridge U. Press, New York, 2009 [1998]. \$90.00 (656 pp.). ISBN 978-0-521-83294-6

Nanoscale Devices: Fabrication, Functionalization, and Accessibility from the Macroscopic World. G. F. Cerofolini. *Nanoscience and Technology*. Springer, Berlin, 2009. \$179.00 (205 pp.). ISBN 978-3-540-92731-0

energy and environment

International Workshop on Advanced Material for New and Renewable Energy. L. T. Handoko, M. R. T. Siregar, eds. *AIP Conference Proceedings* 1169. Proc. wksp., Jakarta, Indonesia, June 2009. AIP, Melville, NY, 2009. \$169.00 (296 pp.). ISBN 978-0-7354-0706-0

fluids

IUTAM Symposium on Unsteady Separated Flows and Their Control. M. Braza, K. Hourigan, eds. *IUTAM Bookseries* 14. Proc. symp., Corfu, Greece, June 2007. Springer, New York, 2009. \$99.00 *paper* (586 pp.). ISBN 978-1-4020-9897-0

Waves and Mean Flows. O. Bühler. *Cambridge Monographs on Mechanics*. Cambridge U. Press, New York, 2009. \$99.00 (341 pp.). ISBN 978-0-521-86636-1

geophysics

Deformation and Gravity Change: Indicators of Isostasy, Tectonics, Volcanism, and Climate Change, Vol. II. D. Wolf, P. J. González, J. Fernández. *Pageoph Topical Volumes*. Birkhäuser, Boston, 2009. \$79.95 *paper* (373 pp.). ISBN 978-3-0346-0147-4

Global Geodetic Observing System: Meeting the Requirements of a Global Society on a Changing Planet in 2020. H.-P. Plag, M. Pearlman, eds. Springer, Berlin, 2009. \$169.00 (332 pp.). ISBN 978-3-642-02686-7

history and philosophy

Ambassadors from Earth: Pioneering Explorations with Unmanned Spacecraft. J. Gallentine. *Outward Odyssey: A People's History of Spaceflight*. U. Nebraska Press, Lincoln, 2009. \$34.95 (500 pp.). ISBN 978-0-8032-2220-5

The Cosmic Keyhole: How Astronomy Is Unlocking the Secrets of the Universe. W. Gater. *Astronomers' Universe*. Springer, New York, 2009. \$29.95 (239 pp.). ISBN 978-1-4419-0512-3

David Hilbert's Lectures on the Foundations of Physics, 1915–1927: Relativity, Quantum Theory and Epistemology. T. Sauer, U. Majer, eds. *David Hilbert's Foundational Lectures* 5. Springer, Berlin, 2009. \$129.00 (795 pp.). ISBN 978-3-540-20606-4

Downward Causation and the Neurobiology of Free Will. N. Murphy, G. F. R. Ellis, T. O'Connor, eds. *Understanding Complex Systems*. Springer, Berlin, 2009. \$129.00 (291 pp.). ISBN 978-3-642-03204-2

Entanglement, Information, and the Interpretation of Quantum Mechanics. G. Jaeger. *The Frontiers Collection*. Springer, Berlin, 2009. \$89.95 (306 pp.). ISBN 978-3-540-92127-1

From Galileo to Gell-Mann: The Wonder That Inspired the Greatest Scientists of All Time, In Their Own Words. M. Bersanelli, M. Gargantini (translated from Italian by J. Bowden). Templeton Press, West Conshohocken, PA, 2009 [2003]. \$22.36 (320 pp.). ISBN 978-1-59947-340-6

Galileo's New Universe: The Revolution in Our Understanding of the Cosmos. S. P. Maran, L. A. Marschall. BenBella Books, Dallas, TX, 2009. \$14.95 *paper* (174 pp.). ISBN 978-1-933771-59-5

The Hancocks of Marlborough: Rubber, Art and the Industrial Revolution—A Family of Inventive Genius. J. Loadman, F. James. Oxford U. Press, New York, 2010. \$49.95 (274 pp.). ISBN 978-0-19-957355-4

space and planetary science

The Six-Inch Lunar Atlas: A Pocket Field Guide. D. Spain. *Astronomer's Pocket Field Guide*. Springer, New York, 2009. \$29.95 *paper* (260 pp.). ISBN 978-0-387-87609-2

Solar Polarization 5: In Honor of Jan Olof Stenflo. S. V. Berdyugina, K. N. Nagendra, R. Ramelli, eds. *Astronomical Society of the Pacific Conference Series* 405. Proc. wksp., Ascona, Switzerland, Sept. 2007. Astronomical Society of the Pacific, San Francisco, 2009. \$77.00 (553 pp.). ISBN 978-1-58381-690-5

statistical physics and thermodynamics

Thermodynamics of Solutions: From Gases to Pharmaceuticals to Proteins. E. Ruckenstein, I. L. Shulgin. Springer, New York, 2009. \$199.00 (346 pp.). ISBN 978-1-4419-0439-3

texts and education

Abstract Algebra: An Interactive Approach. W. Paulsen. *Textbooks in Mathematics*. CRC Press/Taylor & Francis, Boca Raton, FL, 2010. \$99.95 (525 pp.). ISBN 978-1-4200-9452-7, CD-ROM

The Art of Being a Scientist: A Guide for Graduate Students and Their Mentors. R. Snieder, K. Larner. Cambridge U. Press, New York, 2009. \$32.99 *paper* (286 pp.). ISBN 978-0-521-74352-5

Classical Mechanics: An Introduction. D. Strauch. Springer, Berlin, 2009. \$99.00 (405 pp.). ISBN 978-3-540-73615-8

Essentials of Topology with Applications. S. G. Krantz. *Textbooks in Mathematics*. CRC Press/Taylor Francis, Boca Raton, FL, 2010. \$89.95 (404 pp.). ISBN 978-1-4200-8974-5

Introduction to General Relativity. L. Ryder. Cambridge U. Press, New York, 2009. \$75.00 (441 pp.). ISBN 978-0-521-84563-2

Introduction to Seismology. 2nd ed. P. M. Shearer. Cambridge U. Press, New York, 2009 [1999]. \$140.00, \$70.00 *paper* (396 pp.). ISBN 978-0-521-88210-1, ISBN 978-0-521-70842-5 *paper*

Mathematical Methods in Physics: Partial Differential Equations, Fourier Series, and Special Functions. V. Henner, T. Belozerovalova, K. Forinash. A. K. Peters, Ltd., Wellesley, MA, 2009. \$115.00 (841 pp.). ISBN 978-1-56881-335-6, CD-ROM

Mathematics for Physics: A Guided Tour for Graduate Students. M. Stone, P. Goldbart. Cambridge U. Press, New York, 2009. \$90.00 (806 pp.). ISBN 978-0-521-85403-0

Numerical Matrix Analysis: Linear Systems and Least Squares. I. C. F. Ipsen. SIAM, Philadelphia, 2009. \$59.00 *paper* (128 pp.). ISBN 978-0-898716-76-4

Quantum Transport: Introduction to Nanoscience. Y. V. Nazarov, Y. M. Blanter. Cambridge U. Press, New York, 2009. \$99.00 (581 pp.). ISBN 978-0-521-83246-5

The Silicon Web: Physics for the Internet Age. M. G. Raymer. Taylor & Francis, Boca Raton, FL, 2009. \$89.95 (571 pp.). ISBN 978-1-4398-0311-0

Special Relativity. T. M. Helliwell. University Science Books, Sausalito, CA, 2010. \$46.50 *paper* (305 pp.). ISBN 978-1-891389-61-0

Viscoelastic Waves in Layered Media. R. D. Borchardt. Cambridge U. Press, New York, 2009. \$140.00 (305 pp.). ISBN 978-0-521-89853-9

theory and mathematical methods

Ab Initio Molecular Dynamics: Basic Theory and Advanced Methods. D. Marx, J. Hutter. Cambridge U. Press, New York,

2009. \$80.00 (567 pp.). ISBN 978-0-521-89863-8

Advanced Classical Field Theory. G. Giametta, L. Mangiarotti, G. Sardanashvily. World Scientific, Hackensack, NJ, 2009. \$98.00 (382 pp.). ISBN 978-981-283-895-7

Classical and Modern Numerical Analysis: Theory, Methods and Practice. A. S. Ackleh, E. J. Allen, R. B. Hearfott, P. Seshaiyer. *Numerical Analysis and Scientific Computing*. CRC/Taylor & Francis, Boca Raton, FL, 2010. \$99.95 (608 pp.). ISBN 978-1-4200-9157-1

The Discrete Nonlinear Schrödinger Equation: Mathematical Analysis, Numerical Computations and Physical Perspectives. P. G. Kevrekidis. *Springer Tracts in Modern Physics* 232. Springer, Berlin, 2009. \$269.00 (415 pp.). ISBN 978-3-540-89198-7

Fourier–Mukai and Nahm Transforms in Geometry and Mathematical Physics. C. Bartocci, U. Bruzzo, D. H. Ruipérez. *Progress in Mathematics* 276. Birkhäuser, Boston, 2009. \$119.00 (423 pp.). ISBN 978-0-8176-3246-5

Geometry and Physics. F. Etayo, M. Fioravanti, R. Santamaria, eds. *AIP Conference Proceedings* 1130. Proc. wksp., Castro Urdiales, Spain, Sept. 2008. AIP, Melville, NY, 2009. \$118.00 *paper* (195 pp.). ISBN 978-0-7354-0666-7

Hilbert Space Methods in Quantum Mechanics. W. O. Amrein. *Fundamental Sciences*. EPFL Press/CRC Press/Taylor & Francis, Boca Raton, FL, 2009. \$94.95 (395 pp.). ISBN 978-1-4200-6681-4

Hilbert Transforms. Vol. 1. F. W. King. *Encyclopedia of Mathematics and Its Applications* 124. Cambridge U. Press, New York, 2009. \$144.00 (858 pp.). ISBN 978-0-521-88762-5

Hilbert Transforms. Vol. 2. F. W. King. *Encyclopedia of Mathematics and Its Applications* 125. Cambridge U. Press, New York, 2009. \$135.00 (669 pp.). ISBN 978-0-521-51720-1

Linear Systems Theory. J. P. Hespanha. Princeton U. Press, Princeton, NJ, 2009. \$59.95 (263 pp.). ISBN 978-0-691-14021-6

Mechanical Systems, Classical Models. Vol. 3: Analytical Mechanics. P. P. Teodorescu (translated from Romanian by P. P. Teodorescu). *Mathematical and Analytical Techniques with Applications to Engineering*. Springer, New York, 2009 [2002]. \$199.00 (772 pp.). ISBN 978-90-481-2763-4

Noncommutative Spacetimes: Symmetries in Noncommutative Geometry and Field Theory. P. Aschieri et al. *Lecture Notes in Physics* 774. Springer, Berlin, 2009. \$79.95 (199 pp.). ISBN 978-3-540-89792-7

Polygons, Polyominoes and Polycubes. A. J. Guttmann, ed. *Lecture Notes in Physics* 775. Springer, Dordrecht, the Netherlands, 2009. \$129.00 (490 pp.). ISBN 978-1-4020-9926-7

Potential Theory. L. L. Helms. *University Text*. Springer, New York, 2009. \$69.95 *paper* (441 pp.). ISBN 978-1-84882-318-1

Problems in Real Analysis: Advanced Calculus on the Real Axis. T.-L. T. Rădulescu, V. D. Rădulescu, T. Andreescu. Springer, New York, 2009. \$79.95 *paper* (452 pp.). ISBN 978-0-387-77378-0

Quantum Trajectories and Measurements in Continuous Time: The Diffusive Case. A. Barchielli, M. Gregoratti. *Lecture Notes in Physics* 782. Springer, Berlin, 2009. \$89.95 (325 pp.). ISBN 978-3-642-01297-6

Solved Problems in Lagrangian and

Hamiltonian Mechanics. C. Gignoux, B. Silvestre-Brac. Springer, New York, 2009. \$119.00 (464 pp.). ISBN 978-90-481-2392-6

Stochastic Tools in Mathematics and Science. 2nd ed. A. J. Chorin, O. H. Hald. *Surveys and Tutorials in the Applied Mathematical Sciences* 1. Springer, New York, 2009 [2006]. \$44.95 *paper* (162 pp.). ISBN 978-1-4419-1001-1

Tensors and Manifolds: With Applications to Physics. 2nd ed. R. H. Wasserman. Oxford U. Press, New York, 2009 [2004, reissued]. \$60.00 *paper* (447 pp.). ISBN 978-01-9-956482-8 ■

Served Up Fresh, Twice A Week.

We're serving up the articles in our **most popular department**

twice a week, fresh from the oven. Each Monday and Thursday, find out what's happening in physics labs around the world—BEFORE the monthly magazine is printed.

blogs.physicstoday.org/update



**physics
today**