

## H. Eugene Stanley — Curriculum Vitae & Selected Publications — 22 December 2017

*Born 28 March 1941, in Oklahoma City, Oklahoma*

D.Sc. (hon.), University of Leicester (UK), 2017  
D.Sc. (hon.), Universidade Federal do Rio Grande do Norte (Natal, Brazil), 2016  
D.Sc. (hon.), Universidad Federal de Ceara, (Fortaleza.Brazil),2013  
D.Sc. (hon.), Institute for Advanced Studies (Lucca, Italy), 2012  
D.Sc. (hon.), University of Messina (Italy), 2009  
D.Sc. (hon.), Northwestern University (Evanston,IL), 2009  
D.Sc. (hon.), University of Wroclaw (Poland), 2004  
D.Sc. (hon.), University of Dortmund (Germany), 2001  
D.Sc. (hon.), University of Liège (Belgium), 2001  
D.Sc. (hon.), Eötvös Loránd University (Budapest, Hungary), 1997  
D.Sc. (hon.), Bar-Ilan University (Ramat-Gan, Israel), 1994  
Ph.D., Harvard University (T.A. Kaplan & Nobelist J.H.Van Vleck, supervisors), 1967  
Fulbright-supported research, Univ. Köln, Germany (Nobelist Max Delbrück, supervisor),1963  
B.A., Wesleyan University, Middletown, CT, USA (T.A. Green, supervisor), 1962

William Fairfield Warren Distinguished Professor, Boston University, 2011–  
Lorentz Professor, University of Leiden, Spring 2013  
Affiliate Faculty Member, Rafik B. Hariri Institute for Computing and Computational Science & Engineering, 2013–  
Honorary Professor, Shanghai University, 2011–  
Honorary Professor, East China University of Science & Technology, 2011–  
Professor of Chemistry, Boston University, 2007–  
Professor of Biomedical Engineering, Boston University, 2007–  
Honorary Professor, Institute for Advanced Studies, University of Pavia, 2004–  
Honorary Professor, Eötvös Loránd University, Budapest, Hungary 1997–  
University Professor, Boston University, 1979–2011  
Joliot Curie Visiting Professor, Ecole Supérieure de Physique et Chimie, 1979  
Professor of Physiology, Boston University School of Medicine, 1978–  
Director, Center for Polymer Studies, Boston University, 1978–  
Professor of Physics, Boston University, 1976–  
Herman von Helmholtz Assoc. Prof. of Health Sciences & Tech., M.I.T., 1973–1976  
Associate Professor of Physics, M.I.T., 1971–1976  
Assistant Professor of Physics, M.I.T., 1969–1971  
Miller Fellow, (Charles Kittel, Supervisor), Univ. Calif., Berkeley, 1968–1969  
Research Associate, M.I.T., Lincoln Laboratory, 1967–1969

Senior Award, European Complex Systems Society, 2014  
Julius Edgar Lilienfeld Prize, American Physical Society, 2008  
Zenith Fellow Award, The Alzheimer Association (with D. B. Teplow), 2005  
Elected Member, National Academy of Sciences (USA), 2004  
Boltzmann Medal, Int'l. Union of Pure and Applied Physics (IUPAP), 2004  
Teresiana Medal in Complex Systems Research, University of Pavia, 2004  
Jury, “Women in Science Prize” (UNESCO/L’Oreal): 2013,2011,2009,2007,2005,2003  
Jury, “Women in Science USA Prize” (L’Oreal):2013,2012,2011,2010,2009,2008,2007,2006  
Nicholson Medal, American Physical Society, 2003  
Elected *Foreign Member*, *Brazilian Acad. Sciences*, 2002  
Distinguished Teacher-Scholar Award, NSF Director’s Award, 2001  
Memory Ride Award for Alzheimer Research (with B. T. Hyman), 2001  
David Turnbull Prize, Materials Research Society, 1998  
Floyd K. Richtmyer Prize, AAPT, 1997  
Honorary Member, Hungarian Physical Society, 1996  
Fellow, American Association for the Advancement of Science, 1994

Massachusetts Professor of the Year, 1992  
BP Venture Research Award (with J. Teixeira), 1989  
Fellow, American Physical Society, 1974  
John Simon Guggenheim Memorial Fellowship, 1979–1980  
Choice Award for Outstanding Academic Book, 1971

One metric for impact is the Hirsch Index. ISI Web of Science, lists 87,685 citations to 1287 publications (excluding 33 books)—available online at <http://polymer.bu.edu/hes/>. Of these, the PI has authored 139 papers with citation count larger than rank, so  $H = 139$ . Hirsch [PNAS **102**, 16569 (2005)] names only one physicist with  $H > 139$ . Itemized in <http://polymer.bu.edu/hes/articles/highlycited.html>. Google Scholar lists 146,092 citations, of which 171 have citation count larger than rank, so  $H = 171$ .

*van Leeuwenhoek Lecture, Leiden, 2014*  
*Ehrenfest Colloquium (100th Anniversary), University of Leiden, 2013*  
*Ramanujan Memorial Lecture, Calcutta, 2012*  
*John G. Kirkwood Memorial Lecture, Kanpur, 2010*  
*Platinum Jubilee Lectures, Indian Academy of Sciences, 2009*  
*Karlheinz Schmidt Memorial Lecture, Chiemsee, Germany, 2009*  
Sigma Xi National Lecturer, 2002–2003  
Centennial Lecturer, American Physical Society, 1999  
Eötvös Lecturer, Eötvös Loránd Univ. (Budapest, Hungary), 1997  
Professor at Large, Japan Society for the Promotion of Science, 1995 and 1975  
Thirtieth Saha Memorial Lecture, Calcutta, India 1992  
Fourth Bose Memorial Lecture, Calcutta, India 1992  
University Lecturer, Boston University, 1991  
Distinguished Visiting Lecturer, Seoul National University, 1982  
Distinguished Visiting Lecturer, Peking University, 1981  
Distinguished Lecturer, University of Toronto, 1977

Appointed, *Board of External Experts*, NIH Heart, Lung & Blood Inst, 2011–present  
Appointed, Advisory Board *International Center for Dynamical Biomarkers & Translational Medicine (CDBTM)*, National Central University, Taiwan, 2012–  
Appointed, Nominating Committee, Japan Prize, 2011–present  
Chair, *National Academy of Sciences/Keck Futures Initiative on Complexity*, 2008  
National Academy of Sciences (NAS) Committee *Forefronts of Science at the Interface of Physical and Life Sciences*, operated under the auspices of the NRC Board of Life Sciences and the NRC Board on Physics and Astronomy, 2007–2009  
NAS Committee *Committee on Experimentation and Rapid Prototyping in Support of Counterterrorism* 2007–2009  
NAS Committee *Role of Naval Forces in the Global War on Terror*, 2005–2007  
Co-Director, three Enrico Fermi Schools of Physics (Varenna, Italy): 2010, 2003, 1996  
Co-Director, two NATO Adv. Res. Workshops: 2001 (Moscow), 1999 (Budapest)  
Chair, Gordon Research Conference (Water and Aqueous Solutions), 1998  
Co-Director, three NATO Advanced Study Institutes (Cargèse): 1990, 1988, 1985  
Member, NAS Research Briefing Panel on Order, Chaos, and Patterns, 1987  
Chair, IUPAP Conf. on Thermo. & Stat. Mechanics (STATPHYS-16), 1986

*Physica A* (Elsevier), Co-Editor-in-Chief (with Dawson, Indekeu, Parisi, and Tsallis)  
*Graduate Texts in Physics*, Springer-Verlag (Editor in Chief)  
*International Review of Pure and Applied Physics (IRPAP)*, Honorary Editor  
*Quantitative Finance*, Editorial Board  
International Journal of Molecular Sciences (IJMS), Editorial Board  
*Int. J. Theor. & Appl. Finance* (World Scientific Publishers), Editorial Board  
*Finance and Economics Editorial Boards Network An Independent Social Network for Journal Board Members in Finance and Economics*, Member  
*Granular Matter* (Springer-Verlag), Editorial Board  
*Fractals* (World Scientific Publishers), Editorial Board

*Nuclear Physics B* (Elsevier), Editorial Board, 1987–1997  
*New Journal of Physics* (Institute of Physics, UK), Editorial Board  
*Fluctuation and Noise Letters* (World Scientific Publishers), Editorial Board  
*Complexus: Modelling and Understanding Functional Interactions in Life Sciences*  
*Nonlinear Dynamics, Psychology, and Life Sciences*  
*Graduate Texts in Contemporary Physics* (Springer), Co-Editor, 1988–2005  
*Partially Ordered Systems* (Springer book series), Co-Editor

### 113 Ph.D. Theses Supervised, of whom 20 are women

Gerald Paul (M.I.T.), Sava Milos Milošević (M.I.T.), Koichiro Matsuno (M.I.T.), Judith Herzfeld (M.I.T.), Alexander Maurice Alers Hankey (M.I.T.), Richard A. C. Krasnow (M.I.T.), David Noel Lambeth (M.I.T.), Fredric Ira Harbus (M.I.T.), Douglas Karo (M.I.T.), Chiu Shuen Hui (M.I.T.), Kenneth J. Rothschild (M.I.T.), Luke Lokia Liu (Johns Hopkins University, with R. I. Joseph), Rama Daga Bansil (University of Rochester, with E. W. Montroll), Samuel A. Ellias (M.I.T., with S. Grossberg), Jeffrey F. Nicoll (M.I.T.), George F. Tuthill (M.I.T.), Sidney Redner (M.I.T./Boston University), Peter J. Reynolds (M.I.T./Boston University), Hisao Nakanishi (Harvard University, with B. I. Halperin), Agustin Gonzalez, Alla Margolina, Edward T. Gawlinski, Imtiaz Majid, Zorica Djordjevic, Daniel Hong, Cettina Amitrano (University of Naples, with A. Coniglio), Pierre Devillard, Robin L. Blumberg Selinger (Harvard University, with B. I. Halperin), Dimitris Stassinopoulos, Jysoo Lee, Frank Caserta, Peter H. Poole, Mariela Araujo, Greg Huber, Sharon C. Glotzer, Chung-Kang Peng, Hernan Larralde, Srikanth Sastry, Sona Prakash, Stefan Schwarzer, Albert-László Barabási, Luis A. N. Amaral, Veronica Johow, Hernán A. Makse, Gandhi Viswanathan, Steven T. Harrington, Stefano Zapperi, Reza Sadr, Plamen Ivanov, Francis Starr, Nikolay Dokholyan, Yanhui Liu, Ivo Grosse, Vivienne Plerou (Boston College), Parameswaran Gopikrishnan, Antonio Scala, Emilia La Nave, Masako Yamada, Anna Skibinsky, Feng Ding, Chung C. Lo, Nicolas Giovambattista, Jose Borreguero, Kun Hu, Kaushik Matia, Zhi Chen, Eduardo Lopez, Shouyong Peng, Sameet Sreenivasan, Sijung Yun, Pradeep Kumar, Limei Xu, Dongfeng Fu, Zhenhua Wu, Alfonso Lam, Zhenyu Yan, Yiping Chen, Marco Mazza, Arnab Majumdar, Fengzhong Wang, Maksim Kitsak, Irena Vodenska, Andrew Inglis, Sungho Han, Jia Shao, Alexander Petersen, Tobias Kesselring (with H.J. Herrmann), Joel Tenenbaum, Elena Strekalova (with G. Franzese), Mark Dickison, Jianxi Gao (with S. Havlin), Kevin Stokely, Guanliang Li, Jiayuan Luo, Xuqing Huang, Wei Li, Feng Ling (with Baowen Li), Erik Lascaris, Qian Li, Will Morrison, Duan Wang, Chester Curme, Shuai Shao, Antonio Majdandzic, Nima Dehmamy, *Pending*: Adam Avakian Joao Ricardo Santos, Xin Yuan, Asher Mullokandov, Alex Becker, Nagendra Panduranga Jing-Jin Wei,

### 173 Visiting Researchers and Research Associates

M. Howard Lee (M.I.T.), Ruth Ditzian (now Ruth Ditzian-Kadanoff) (M.I.T.), Chikao Kawabata (M.I.T.), Thomas C. Chang (M.I.T.), George D.J. Phillies (M.I.T.), Irwin M. Asher (M.I.T.), Jos Rogiers (M.I.T.), Vittold Yurkevich (M.I.T.), William Klein, Alan S. Brown, Antonio Coniglio, Shunichi Muto, Izumi Nishio, Rosemary Sanchez, Pilar Ruiz, Dietrich Stauffer, Walter Selke, Don Shalatin, Naeem Jan, Ikuo Ono, Zhan-ru Yang, Alfons Geiger, Fereydoon Family, Mohamed Daoud, Peter Mausbach, Zeev Alexandrowicz, Constantino Tsallis, Ivan P. Fittipaldi, Roberto dos Santos, Daniel Ben-Avraham, Francois Leyvraz, Armin Bunde, F. Y. Wu, Leo Moseley, Robin J. Speedy, Viktor Chukanov, Sasuke Miyazima, Paul Trunfio, Sergey V. Buldyrev, Preben Alstrom, Francesco Sciortino, Ulrich Essmann, Linda S. Shore, Edwin F. Taylor, Borko Stosic, Ivan Fittipaldi, Pablo Jensen, Mark F. Gyure, Peter Ossadnik, Martina Ossadnik, Rosario N. Mantegna, Philip Maass, Peter Garik, Michael Rosenblum, Kent Lauritsen, J. K. Nielsen, Rodolfo Cuerno, Francisco Brady, Martin Meyer, Heiko Leschhorn, Luciano Da Silva, Hiroko Kitaoka, Enrique Cabarcos, Pierre Cizeau, Murat Canpolat, Carlos Argolo, Jose Cressoni,

Jan Karbowski, Harald Kallabis, Luis Amaral, Arie Ben-Naim, Thadeu Penna, Luis Cruz-Cruz, Brigita Urbanc, Youngki Lee, Marc Barthelemy, Pedro Bernaola, Giancarlo Franzese, Alessandro Chessa, Bernd Rosenow, Dietrich Wolf, Marcia C. B. Barbosa, Francisco de los Santos Fernandez, Verena Schulte-Frohlinde, Masaki Hoshiyama, Paulo Netz, Gerald Paul, Boris Podobnik, Francisco Sales, Yossi Ashkenazy, Stefano Mossa, Masaki Hoshiyama, Lidia Braunstein, Manuel Marques, Andre Auto-Moreira, Don R. Baker, Kensuke Fukuda, Miguel de la Casa, Roberto Consiglio, Jan W. Kantelhardt, Toshihiro Tanizawa, Kazuko Yamasaki, Philipp Weber, Jan Nagler, Gennady Genkin, Woo-Sung Jung, Daniel T. Schmitt, Eudenisson Albuquerque, Yougui Wang, Nelido Gonzalez-Segredo, Yinlin Xu, Moo-Young Choi, Joon-Young Moon, Shwu-Jane Shieh, Fabio Pammolli, Massimo Riccaboni, Sadha Moodley, Pandelis Perakakis, Fengzhong Wang, Laurent Seuront, Jianxi Gao, Wenqi Duan, Yusong Tu, Dario Corradini, Tobias Preis, Takashi Shimada, Jiping Huang, Mario Bertella, Jonathas Silva, Helen Susannah Moat, Gaogao Dong, Zhiqiang Jiang, Rujin Du, Huijuan Wang, Dror Y. Kenett, J. S. Andrade Jr, Xin (Siva) Zhang, Wen Fang, Mei-Chu (Maggie) Chang, Chang-Shuai Li, Xiaojun Zhao, Simone Mainardi, Tolga Ulusoy, Paolo Sgrignoli, Jean Wu, Henio Aragao, Carles Calero, Xiaobing Feng, Sary Levy-Carciente, Qianming Zhang, Ying-Hui Shao, Youzhao Gou, Linyuan Lu, Gao Li, Gang Sun, Josef Ludescher, Wenjie Jia, Tomislav Lipic, Qiang Li, Xueming Liu, Shinan Cao, Yinan Jiang, Zhen Su, Chuang Liu, Liang Eric Tang, Yong Tao, Gang-Jin Wang, Weiqiang Huang, Qingju Fan, Askery Alexandre Canabarro, Yuhao Qin, Zhesi Shen, Min Lin, Yufan Lu, Wenyi Fang, Yachun Gao, and Linfeng Zhong.

## 8 Books, Listed in Rank Order by Citation Count

- (i) H. E. Stanley, *Introduction to Phase Transitions and Critical Phenomena*, “International Series of Monographs on Physics” (Oxford University Press, Oxford and New York 1971). Translated into Russian by S. V. Vonsovsky (MIR, Moscow, 1973); translated into Japanese by K. Matsuno (Tokyo Tosho, Tokyo, 1974). **Citations:** 7033 (3684 cited correctly, 1434 cited as Eugene Stanley, 1242 with the year of the reprint, 1971, rest cited under different years, different titles, and with various typing mistakes).
- (ii) A.-L. Barabasi and H. E. Stanley, *Fractal Concepts in Surface Growth* (Cambridge University Press, Cambridge, 1995). Adoptions: *Library of Science Book Club*. Citations: 3181 (2926 cited correctly; rest cited under different years and titles)
- (iii) R. N. Mantegna and H. E. Stanley, *Introduction to Econophysics: Correlations & Complexity in Finance* (Cambridge University Press, Cambridge, 2000). Japanese Translation: Masumi Nakajima (Economist-sha, Tokyo 2000); Polish Translation: R. Kutner (2001); Chinese translation: Liang Jing (2002). Indonesian Translation: Y. Surya (2002). Russian Translation: Alexandr Ezhov (2007). **Citations:** 1611 (792 cited correctly, with subtitle, 383 without subtitle, 341 with publication year 1999, rest cited other ways).
- (iv) D. Stauffer and H. E. Stanley, *From Newton to Mandelbrot: A Primer in Theoretical Physics* (Springer Verlag, Heidelberg, 1990). Translated into Japanese, Hungarian and Polish. *Second Edition: 1996. Third Edition* (with A. Lesne): *2017*. Expanded French Edition: D. Stauffer, H. E. Stanley, and A. Lesne, *Cour de Physique: De Newton à Mandelbrot* (Springer France, Paris, 1999).
- (v) E. Guyon and H. E. Stanley, *Les Formes Fractales* [English translation: *Fractal Forms*] (Elsevier North Holland, Amsterdam, 1991). Catalog for an exhibit *Les Formes Fractales* (Palais de la Découverte, Paris, 1991).

- (vi) K. Brecher, S. V. Buldyrev, P. Garik, S. M. Milošević, H. E. Stanley, E. F. Taylor, and P. A. Trunfio, *Fractals in Science* (Springer Verlag, Berlin, 1994).
- (vii) G. M. Viswanathan, M. G. E. da Luz, E. P. Raposo, and H. E. Stanley, *The Physics of Foraging* (Cambridge University Press, Cambridge, 2011). *Reviews*: N. Watkins, *Physics Today* **65**(1), 44 (2012). **Citations**: 249
- (viii) S. V. Buldyrev, F. Pammolli, M. Riccaboni, and H. E. Stanley, *The Growth & Instability of Economic Systems* (in completion stage).

#### 24 Edited Volumes, Listed Chronologically

- (i) H. E. Stanley, ed., *Biomedical Physics and Biomaterials Science* (M.I.T. Press, Cambridge, 1972).
- (ii) H. E. Stanley, ed., *Cooperative Phenomena near Phase Transitions* (M.I.T. Press, Cambridge, 1973).
- (iii) H. E. Stanley and N. Ostrowsky, eds., *On Growth and Form: Fractal and Nonfractal Patterns in Physics* (Proc. 1985 Cargèse NATO ASI, Series E: Appl. Sciences, Vol 100). Martinus Nijhoff Publishers, Dordrecht, 1986. Citations: 523 [246 cited correctly, rest with various errors]
- (iv) H. E. Stanley, ed., *Statistical Physics* (Proc. STATPHYS-16, IUPAP Intl. Conf. on Thermodynamics & Statistical Mechanics, Boston University, 11-15 Aug 1986) North-Holland Physics, Amsterdam, 1986.
- (v) H. E. Stanley and N. Ostrowsky, eds., *Random Fluctuations and Pattern Growth: Experiments & Theory* (Proc. 1988 Cargèse NATO ASI Series E: Appl. Sciences, Vol 157). Kluwer Academic Publishers, Dordrecht, 1988. Citations: 157 [141 cited correctly + 16 with various mis-spellings.
- (vi) H. E. Stanley and N. Ostrowsky, eds., *Correlations & Connectivity: Geometric Aspects of Physics, Chemistry & Biology* (Proc. 1990 Cargèse NATO ASI, Series E: Appl. Sciences, Vol 188). Kluwer Academic Publishers, Dordrecht, 1990. Citations: 29
- (vii) H. Z. Cummins, D. J. Durian, D. L. Johnson, and H. E. Stanley, eds., *Disordered Materials and Interfaces* (Materials Research Society, Pittsburgh, 1996).
- (viii) F. Mallamace and H. E. Stanley, eds., *Physics of Complex Systems: Proc. 1996 Enrico Fermi School on Physics, Course CXXXIV* (Soc. It. Fisica, Bologna, 1997).
- (ix) C. M. Knobler, A. Robledo, and H. E. Stanley, eds., *Statistical Mechanics in the Physical, Biological, and Social Sciences: Festschrift in Honor of Benjamin Widom on the occasion of his 70th Birthday* (Elsevier, Amsterdam, 1997). [Special issue of *Physica A*, vol. **244**, pp. 1-544.]
- (x) A. Gadomski, J. Kertesz, H. E. Stanley, and N. Vanderwalle, eds., *Applications of Statistical Physics: Proc. NATO Advanced Research Workshop, Budapest* (Elsevier, Amsterdam, 1999).
- (xi) J. L. Green, C. T. Moynihan, R. J. Speedy, H. E. Stanley, and L. M. Torell, eds., *C. Austen Angell Festschrift* [*J. Phys. Chem. B* **103**, No. 20, 20 May 1999].

- (xii) H. E. Stanley, M. Aizenman, B. Jancovici, O. Penrose, and J. Percus, eds., *Statistical Mechanics: From Rigorous Results to Applications: Festschrift in Honor of Joel L. Lebowitz on the occasion of his 70th Birthday* (Elsevier, Amsterdam, 2000). [Special issue of Physica A, vol. **279**, pp. 1-486.]
- (xiii) M. Tokuyama and H. E. Stanley, eds., *Statistical Physics—3rd Tohwa University Intl. Conf.* (AIP Conf. Series, Volume 519, 2000).
- (xiv) Y. Taniguchi, H. E. Stanley, and H. Ludwig, eds., *Biological Systems under Extreme Conditions: Structure and Function* (Springer-Verlag, Heidelberg, 2002).
- (xv) V. Brazhkin, S. V. Buldyrev, V. N. Ryzhov, and H. E. Stanley, eds., *New Kinds of Phase Transitions: Transformations in Disordered Substances* Proc. NATO Advanced Research Workshop, Volga River (Kluwer, Dordrecht, 2002). Citations: 33
- (xvi) F. Family, M. Daoud, H. Herrmann and H. E. Stanley, eds., *Scaling and Disordered Systems: Workshop Honoring Antonio Coniglio on his 60th Birthday* (World Scientific Publishers, Singapore, 2002).
- (xvii) H. Taitelbaum, A. Bunde, R. Kopelman, Y. Lereah and H. E. Stanley, eds *Randomness and complexity - Proceedings of the - International Workshop in honor of Shlomo Havlin's 60-th birthday, Eilat, Israel, 5-9 January 2003* (Elsevier, Amsterdam, 2000). [Special issue of Physica A, vol. **330**, pp. 1-303.]
- (xviii) H. E. Stanley, M. Ausloos, J. Kertesz, R. N. Mantegna, J. A. Scheinkman, and H. Takayasu [eds] *Proceedings of the International Econophysics Conference, Bali* (Elsevier, Amsterdam, 2003).
- (xix) F. Mallamace and H. E. Stanley [eds.], *The Physics of Complex Systems: New Advances and Perspectives* [Proc. 2003 Enrico Fermi School International School of Physics, Course CLV, Course CLV] (Soc. Italiana Fisica, Bologna, 2004).
- (xx) H. E. Stanley, E. Balcells, E. Ruiz-Geli, M. Dominguez, P. Puigdomenech, S. Rovira, O. Pibernat, J. Ros, M. J. Pico, P. Noguera, R. Salecl, H. Lieberman, J. Pigem, L. Fananas, D. Jou, L. Reales, S. Jorda, J. Scott, C. Gelabert, O. Vilarroya, M. Maso, M. Maso, J. Roca, and J. Perello, *Fora d'equilibri: encontre internacional noves fronteres de la ciencia, l'art i el pensament* (Generalitat de Catalunya Departament de Cultura i Mitjans de Comunicacio, 2008).
- (xxi) H. E. Stanley, A.-L. Barabási, J. B. Bassingthwaighte, B. L. Bassler, D. K. Campbell, S. W. Chisholm, J. S. Langer, S. A. Levin, M. E. Paté-Cornell, M. A. Savageau, D. Valle, and M. Vidal [eds], *Complex Systems: Task Group Summaries* (The National Academies Press, Washington DC, 2008).
- (xxii) F. Mallamace and H. E. Stanley [eds.], *Complex Materials in Physics and Biology* [Proc. 2010 Enrico Fermi School International School of Physics, Course CLXXVI] (Soc. Italiana Fisica, Bologna, 2012).
- (xxiii) H. E. Stanley, Ed. *Liquid Polymorphism*, volume 152 in the series *Advances in Chemical Physics* (S. A. Rice, Ed). Wiley, NY, 2013.
- (xxiv) D. Matrasulov and H. E. Stanley [eds], *Nonlinear Phenomena in Complex Systems: From Nano to Macro Scale*, Proceedings of NATO Advanced Research Workshop, Tashkent, Uzbekistan, May 2013 (Springer, Dordrecht, 2014).
- (xxv) I. Florescu, M. C. Mariani, H. E. Stanley, and F. G. Viens [eds.], *Handbook of High-Frequency Trading and Modeling in Finance* (Wiley, New York, 2016).

## 5 Encyclopedia Articles

- (i) H. E. Stanley, “Critical Phenomena” in *Encyclopedia of Physics* (Ed. R. M. Besancon). Van Nostrand and Reinhold Publ. Co., N.Y. 1974. p. 180–185.
- (ii) H. E. Stanley, “Critical Phenomena” in *Encyclopedia of Polymer Science and Engineering*, eds Mark, Bikales, Overberger, and Menges (John Wiley and Sons, New York, 1986), Vol. 4.
- (iii) M. Daoud, H. E. Stanley, and D. Stauffer, “Scaling, Exponents, and Fractal Dimensions” in *Polymer Properties Handbook*, edited by J. E. Mark (AIP Press, Woodbury NY, 1995). pp. 71-80.
- (iv) A. Bunde, S. Havlin, J. Klafter, and H. E. Stanley, “Diffusion” in *Macmillan Encyclopedia of Physics* (Macmillan, New York, 1996).
- (v) H. E. Stanley, “Liquid and Glassy Water: Two Materials of Interdisciplinary Interest” in *Handbook of Materials Modeling, Vol. 1: Methods and Models*, edited by S. Yip (Springer-Verlag, Berlin, 2005), pp. 2917-2922.

## 14 Book Chapters

- (i) H. E. Stanley, “Critical Phenomena in Heisenberg Models of Magnetism,” Chapter 14 of *Solid State Physics, Nuclear Physics and Particle Physics*, edited by I. Saavedra (W. A. Benjamin Inc., New York, 1968), pp. 831–844.
- (ii) H. E. Stanley, G. Paul, and S. Milošević, “Dynamic Critical Phenomena in Fluid Systems,” in *The Liquid State*, Vol. 8B of the 10-volume *Treatise on Physical Chemistry*, edited by H. Eyring, D. Henderson, and W. Jost (Academic Press, New York, 1971), pp. 795–878.
- (iii) H. E. Stanley, T. S. Chang, F. Harbus, and L.L. Liu, “Five Introductory Lectures on Critical Phenomena in Simple and Complex Systems: The Unifying Hypotheses of Scaling and Universality,” in *Proceedings 1973 Enrico Fermi Varenna School: Course 59 — Local Properties at Phase Transitions*, edited by K. A. Müller and A. Rigamonti (North-Holland, Amsterdam, 1976), pp. 45–136.
- (iv) H. E. Stanley, “The D-Vector Model or ‘Universality Hamiltonian’: Properties of Isotropically-interacting D-Dimensional Classical Spins,” in *Phase Transitions and Critical Phenomena, Volume III*, edited by C. Domb and M. S. Green (Academic Press, London, 1974), pp. 485–567.
- (v) H. E. Stanley, “Series Expansions and the Universality Hypothesis,” In *Critical Phenomena in Alloys, Magnets, and Superconductors* [Proceedings of the Battelle Conference in Gstaad, Switzerland], edited by R. E. Mills, E. Ascher, and R. I. Jaffee (McGraw-Hill, New York, 1971), pp. 204–221.
- (vi) H. E. Stanley, “Scaling Laws and Universality—or Statistical Mechanics is not Dead!” in *Statistical Mechanics and Field Theory*, edited by R. Sen (Keter Publishing, Jerusalem, 1972), pp. 225–267.
- (vii) H. E. Stanley, A. Hankey, and M. H. Lee, “Scaling, Transformation Methods and Universality,” in *Critical Phenomena: Proceedings of the 1970 Varenna Summer School*, edited by M. S. Green (Academic Press, New York, 1971), pp. 237–264.

- (viii) H. E. Stanley, “The Static Scaling Hypothesis and Its Implications for a Spin Model of SrTiO<sub>3</sub>,” in *Structural Phase Transitions and Soft Modes* [Proceedings NATO Advanced Study Institute, Geilo, Norway, April 1971], edited by E. J. Samuelsen, E. Andersen, and J. Feder (Universitetsforlaget, Oslo, 1971).
- (ix) S. Milošević and H. E. Stanley, “Scaling Functions of Magnets,” in *Proceedings 1973 Enrico Fermi Varenna School: Course 59 – Local Properties at Phase Transitions*, edited by K. A. Müller and A. Rigamonti (North-Holland, Amsterdam, 1976), pp. 773–784.
- (x) H. E. Stanley, R. Bansil, and J. Herzfeld, “Mechanisms for the Modulation of Hemoglobin Oxygenation: A Statistical Mechanical Analysis of Equilibrium and Kinetic Data,” in *Metal Ions and Biological Systems, Volume 7*, edited by H. Sigel (Marcel Dekker, New York, 1978), Chapter 8.
- (xi) J. Herzfeld and H. E. Stanley, “Cooperativity in Biological Systems: A General Quantitative Model with Application to Hemoglobin Oxygenation,” in *Biomedical Physics and Biomaterials Science*, edited by H. E. Stanley (MIT Press, Cambridge MA, 1972), pp. 65–85.
- (xii) K. J. Rothschild and H. E. Stanley, “Globular Membrane Proteins as Functional Units of Ionic Transport,” in *Biomedical Physics and Biomaterials Science*, edited by H. E. Stanley (MIT Press, Cambridge MA, 1972), pp. 3–23
- (xiii) K. J. Rothschild and H. E. Stanley, “The Molecular Organization and Function of Biological Membranes: A Possible Microscopic Picture of Ionic Permeation” [Invited Talk at the 1972 Mayo Clinic “Bell Symposium”], in *Membranes and Viruses in Immunopathology*, edited by S. B. Day and R. A. Good (Academic Press, New York, 1972), pp. 49–81.
- (xiv) H. E. Stanley, “Cooperative Phenomena in Biological Systems,” in *Proceedings 1973 Enrico Fermi Varenna School: Course 59 – Local Properties at Phase Transitions*, edited by K. A. Müller and A. Rigamonti (North-Holland, Amsterdam, 1976), pp. 856–879.

**623 Articles, in the period 1966–1999**  
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