Outline
References

Physica A: Statistical Mechanics and its Applications
Volume 617, 1 May 2023, 128622

Editorial

In memory of Dietrich Stauffer

Marcel Ausloos, Debashish Chowdhury, Lucilla de Arcangelis, Hans Herrmann, Janusz Hołyst, János Kertész, Krzysztof Kułakowski, Suzana Moss de Oliveira

Show more
Add to Mendeley
Share
Cite

https://doi.org/10.1016/j.physa.2023.128622

Get rights and content
Previous article in issue
Next article in issue

Dietrich Stauffer (see the photo above, consent has been provided by videolectures.net) was born on Feb. 06, 1943 in Bonn, Germany. He passed away on Aug. 06, 2019 [1].

After schooling in Erlangen, Dietrich Stauffer studied for M.Sc. (Physics) from 1961–1967 in München. He obtained his Ph.D. in 1970 at the TU München, under the supervision of Prof. Wilhelm Brenig and Prof. Hartwig Schmidt, and his "habilitation" at the Universität des Saarlandes, under the supervision of Prof. Kurt Binder, in 1975.

Since 1977, he was a professor at the University of Köln from where he retired in 2008.

He was the co-creator and director, from 1988 to 2000, of the German Supercomputer Center HLRZ in Jülich and led the N-body problem research group. For a long time period Dietrich Stauffer held world record for the size of the computer-simulated Ising model.

Let it be emphasized that the first research work which made Dietrich Stauffer a world scientific leader were his extensive studies on the statistical physics of percolation. But, he was more than (the) world authority on the subject. He was a guru. Indeed, he was a pioneer of intense computation in multiple areas of statistical physics. He invented many calculation methods based on cellular automata. His areas of interest were multidisciplinary and interdisciplinary. Their enumeration includes disordered systems: fluids, gels, magnetic systems, planets and stars, clouds, etc.; nucleation and growth phenomena; the various aspects of the processes of diffusion and fracture, where we recognize its leitmotiv: the study of percolation. At this time of writing, his Physics Report 1979 paper "Scaling theory of percolation clusters" [2] has been cited more than 2800 times.

Moreover, he studied the dynamics of population, epidemics, reproduction, and ageing (since 1993 !), … and wars. In 1999, he published "Evolution, Money, War and Computers" [3]. In 2006, he published "Biology, sociology, geology by computational physicists" [4] .

After 1995, he devoted himself to econophysics and sociophysics, and since 2005 to the evolution of languages. It is impossible to be sure about his number of scientific publications: say, more than 650 scientific "publications", more exactly "scientific contributions", since, not all were necessarily in peer review scientific journals. He was prolific, and able to comment on many aspects of human life. To his dismay, a few of his papers were rejected; although he respected those editorial decisions he remained proud of those rejected papers.

After his retirement, he was much interested in modern history, in particular concerned by World War II "origin and conditions" as well as the political development of after war Europe. But, he also cared about the place of Germany (and other countries) in football competitions, insisting on possible injustice in some final scores. Together with a great sense of humour, - often insisting that he was a boche (!), he loved honesty and justice, had provocative political views, hated fake news, and "knife in the back" attitude.

His book "Introduction to the Theory of Percolation" [5] is one of the highest cited titles in statistical physics (nearly eighteen thousand times) but it does not put him in the top ten of the most cited authors articles yet !, - a tongue in cheek comment, he made.

Dietrich Stauffer was a member of the Editorial Board of many scientific journals, e.g., Physica A, J. Aerosol Sci., J. Stat. Phys., J. Phys.A., J. Physique, Physics World, Computers in Physics, Int. J. Mod. Phys. C (managing editor), Theory in Biosciences, European Physical Journal B, Quantitative Finance, Computers in Science and Engineering, Blickpunkt: Der Mann, …... He was the creative father of the Annual Reviews of Computational Physics.

Dietrich Stauffer was an outstanding, precise, mild, constructive, didactical, and accessible teacher. He was asked to give prestigious courses in Brazil, Poland, Hungary, Japan, the USA, France, Belgium, etc. In 2017 he published "From Newton to Mandelbrot: A Primer in Theoretical Physics" [6], a fascinating overview of evolution of main concepts in theoretical physics.

Enthusiastic researcher, motivating promoter, he inspired and encouraged. He attracted young and old; he was very 'endearing'. He respected his peers, highlighted others, especially his young students and co-workers. Professor Stauffer has directed many doctoral theses. He was very generous in supplying the key ideas of works to his students but did not put his name in the list of authors unless he himself did some of the actual computations.

Dietrich Stauffer received a large number of prizes and scientific distinctions, e.g., in 1985, the Humboldt Prize for French–German Scientific Cooperation; in 1999, the French–German Kastler–Genter Physics Prize; the same year he was elected Foreign Member of the Brazilian Academy of Sciences and received the Prize of Polish Education Minister. In 2006 he received a Doctorate Honoris Causa from the University of Liège.

Dear Dietrich,

this special issue of *Physica A* contains fifty papers that only partially cover your broad research interests. The volume has been edited to acknowledge your magnificent scientific contributions to physics and social sciences. Even more important was your friendly approach to us, your tolerance, your fantastic sense of humour, and your ability to see things in their proper scale. Your unrepeatable personality is what we miss most.

Your colleagues and friends

Editors of this special issue

Marcel Ausloos

Debashish Chowdhury

Lucilla de Arcangelis

Hans Herrmann

Janusz Hołyst

János Kertész

Krzysztof Kułakowski

Suzana Moss de Oliveira

References

[1] Binder K., Herrmann H.J., Kertész J., Schadschneider A., Wolf D.E.
Nachruf auf Dietrich Stauffer
Physik J., 18 (11) (2019), p. 68
View at publisher ↗ View in Scopus ↗ Google Scholar ↗

Herrmann H.J., de Oliveira P.M.C., Schadschneider A.
Dietrich Stauffer (1943–2019)
Int. J. Mod. Phys. C, 31 (07) (2020), p. 2001001
View at publisher ↗ CrossRef ↗ View in Scopus ↗ Google Scholar ↗

[2] Stauffer D.
Scaling theory of percolation clusters
Phys. Rep., 54 (1) (1979), pp. 1-74
View PDF View article View in Scopus ↗ Google Scholar ↗

[3] de Oliveira S.M., de Oliveira P.M.C., Stauffer D.
Evolution, Money, War and Computers, Non-Traditional Applications of Computational Statistical Physics
Teubner, Stuttgart-Leipzig (1999)
Google Scholar ↗

[4] Stauffer D., de Oliveira S.M.M., de Oliveira P.M.C., de Sá Martins J.S.
Biology, Sociology, Geology By Computational Physicists
Elsevier (2006)
Google Scholar ↗

[5] Stauffer D., Aharony A.
Introduction To Percolation Theory
Taylor & Francis (2018)
Google Scholar ↗

[6] Stauffer D., Stanley H.E.
From Newton To Mandelbrot: A Primer in Theoretical Physics
Springer (1990)
Google Scholar ↗

Cited by (0)

View Abstract

Part of special issue
Interdisciplinary applications of statistical physics
Edited by Marcel Ausloos, Debashish Chowdhury, Lucilla de Arcangelis, Hans Herrmann, Janusz Holyst, János Kertész … Suzana Moss de Oliveira
View special issue

Recommended articles

Exclusion statistics and thermodynamics of
Physica A: Statistical Mechanics and its Applications, …
J.J. Riccardo, …, A.J. Ramirez-Pastor
View PDF

Selective 3-dimensional patterning during phase separation of a continuously…
Physica A: Statistical Mechanics and its Applications, …
Rikuya Ishikawa, …, Rei Kurita
View PDF

Study of phase transition of Potts model with Domain Adversarial Neural Network
Physica A: Statistical Mechanics and its Applications, …
Xiangna Chen, …, Chunbin Yang
View PDF

Show 3 more articles