



# Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond (Annual Reviews of Nonlinear Dynamics and Complexity (VCH))

From Wiley-VCH

Download now

Read Online 

## Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) From Wiley-VCH

This book offers a comprehensive picture of nonequilibrium phenomena in nanoscale systems. Written by internationally recognized experts in the field, this book strikes a balance between theory and experiment, and includes in-depth introductions to nonequilibrium fluctuation relations, nonlinear dynamics and transport, single molecule experiments, and molecular diffusion in nanopores. The authors explore the application of these concepts to nano- and biosystems by cross-linking key methods and ideas from nonequilibrium statistical physics, thermodynamics, stochastic theory, and dynamical systems. By providing an up-to-date survey of small systems physics, the text serves as both a valuable reference for experienced researchers and as an ideal starting point for graduate-level students entering this newly emerging research field.

 [Download Nonequilibrium Statistical Physics of Small System ...pdf](#)

 [Read Online Nonequilibrium Statistical Physics of Small Syst ...pdf](#)

# **Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond (Annual Reviews of Nonlinear Dynamics and Complexity (VCH))**

*From Wiley-VCH*

## **Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) From Wiley-VCH**

This book offers a comprehensive picture of nonequilibrium phenomena in nanoscale systems. Written by internationally recognized experts in the field, this book strikes a balance between theory and experiment, and includes in-depth introductions to nonequilibrium fluctuation relations, nonlinear dynamics and transport, single molecule experiments, and molecular diffusion in nanopores.

The authors explore the application of these concepts to nano- and biosystems by cross-linking key methods and ideas from nonequilibrium statistical physics, thermodynamics, stochastic theory, and dynamical systems. By providing an up-to-date survey of small systems physics, the text serves as both a valuable reference for experienced researchers and as an ideal starting point for graduate-level students entering this newly emerging research field.

## **Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) From Wiley-VCH Bibliography**

- Sales Rank: #2990323 in eBooks
- Published on: 2013-01-17
- Released on: 2013-01-17
- Format: Kindle eBook

 [Download Nonequilibrium Statistical Physics of Small System ...pdf](#)

 [Read Online Nonequilibrium Statistical Physics of Small Syst ...pdf](#)

---

**Download and Read Free Online Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) From Wiley-VCH**

---

## **Editorial Review**

### **From the Back Cover**

This book offers a comprehensive picture of nonequilibrium phenomena in nanoscale systems. Written by internationally recognized experts in this field, it strikes a balance between theory and experiment, and includes in-depth introductions to nonequilibrium fluctuation relations, nonlinear dynamics and transport, single molecule experiments, and molecular diffusion in nanopores.

The authors explore the application of these concepts to nano- and biosystems by cross-linking key methods and ideas from nonequilibrium statistical physics, thermodynamics, stochastic theory and dynamical systems. By providing an up-to-date survey of small systems physics, it serves both as a valuable reference for experienced researchers and as an ideal starting point for graduate-level students moving into this newly emerging field of research.

### **About the Author**

Rainer Klages, Reader in Applied Mathematics at Queen Mary University of London, studied physics and philosophy at the Technical University of Berlin. His research stations were Maryland/USA, Budapest, Brussels, and Dresden. His main research interests are nonlinear dynamics, complex systems and nonequilibrium statistical physics with applications to nano- and biosystems.

Wolfram Just, Reader in Applied Mathematics at Queen Mary University of London, studied theoretical physics in Darmstadt, Fukuoka, Goettingen, and Dresden. His research interests cover topics in statistical physics and dynamical systems theory with special emphasis on synchronisation and control, dynamics with time delay, phase transitions in spatially extended systems, derivation of transport equations, large deviations and extreme events, and complex networks.

Christopher Jarzynski studied physics at Princeton University and the University of California, Berkeley. After a postdoctoral appointment at the Institute for Nuclear Theory in Seattle, he spent ten years at Los Alamos National Laboratory, and since 2006 he has been on the faculty of the University of Maryland, College Park, in the Department of Chemistry and Biochemistry. His research interests include nonequilibrium statistical physics, computational thermodynamics, with the modeling of nanoscale phenomena.

## **Users Review**

### **From reader reviews:**

#### **Heather Jones:**

Now a day individuals who Living in the era just where everything reachable by match the internet and the resources inside it can be true or not need people to be aware of each data they get. How people have to be smart in having any information nowadays? Of course the reply is reading a book. Examining a book can help persons out of this uncertainty Information especially this Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) book because book offers you rich info and knowledge. Of course the info in this book hundred percent guarantees there is no doubt in it you probably know this.

**Silvia Washington:**

Reading can be called imagination hangout, why? Because when you are reading a book mainly book entitled *Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond* (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) the mind will drift away through every dimension, wandering in each and every aspect that maybe mysterious for but surely can become your mind friends. Imaging each and every word written in a reserve then become one form conclusion and explanation that will maybe you never get ahead of. The *Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond* (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) giving you one more experience more than blown away your thoughts but also giving you useful info for your better life on this era. So now let us explain to you the relaxing pattern here is your body and mind are going to be pleased when you are finished reading through it, like winning a sport. Do you want to try this extraordinary shelling out spare time activity?

**Cami Raley:**

The book untitled *Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond* (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) contain a lot of information on this. The writer explains your ex idea with easy technique. The language is very easy to understand all the people, so do not really worry, you can easy to read that. The book was authored by famous author. The author brings you in the new time of literary works. It is possible to read this book because you can read more your smart phone, or gadget, so you can read the book in anywhere and anytime. In a situation you wish to purchase the e-book, you can start their official web-site along with order it. Have a nice examine.

**Linda Barefoot:**

This *Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond* (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) is fresh way for you who has interest to look for some information because it relief your hunger info. Getting deeper you on it getting knowledge more you know or else you who still having little bit of digest in reading this *Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond* (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) can be the light food for yourself because the information inside this particular book is easy to get by means of anyone. These books build itself in the form that is certainly reachable by anyone, yes I mean in the e-book form. People who think that in e-book form make them feel sleepy even dizzy this book is the answer. So there is absolutely no in reading a book especially this one. You can find actually looking for. It should be here for an individual. So, don't miss it! Just read this e-book kind for your better life as well as knowledge.

**Download and Read Online *Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond* (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) From Wiley-VCH**

**#R6ZPTD3CYMS**

# **Read Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) From Wiley-VCH for online ebook**

Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) From Wiley-VCH Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) From Wiley-VCH books to read online.

## **Online Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) From Wiley-VCH ebook PDF download**

### **Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) From Wiley-VCH Doc**

Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) From Wiley-VCH MobiPocket

Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) From Wiley-VCH EPub

**R6ZPTD3CYMS: Nonequilibrium Statistical Physics of Small Systems: Fluctuation Relations and Beyond (Annual Reviews of Nonlinear Dynamics and Complexity (VCH)) From Wiley-VCH**