



INDIAN INSTITUTE OF
SCIENCE

SIR C V RAMAN MEMORIAL LECTURE

entropy

The disorder created by entropy is in the mind

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ABSTRACT

So much has been said about entropy that it is probably best to remain silent on the subject. Somewhat unwisely, I will nevertheless talk about this dangerous subject because in numerical simulations one is confronted very directly with what entropy is – and, more importantly, with what it is not. I will therefore talk about entropy from the perspective of numerical simulations. Specifically, I will discuss (well known) examples where entropy increases with increasing order, I will briefly touch on a common misinterpretation Gibbs' paradox and I will discuss how recent numerical tools allow us to compute close and distant relatives of the Statistical Mechanical entropy.



BIOGRAPHY

Daan Frenkel was appointed 1968 Chair of Chemistry (Cambridge) in 2007. He was Head of the Department of Chemistry from 2011 to 2015. Frenkel is a Foreign Member of the Royal Society, the American Academy of Arts & Science and the US National Academy of Sciences (USA). He is also a member of the Netherlands Academy of Sciences, TWAS and the Academia Europaea. He is an Honorary Fellow of Trinity College Cambridge. He is the recipient of the Boltzmann Medal in 2016 and the 'Aneesur Rahman Prize' of the APS and many other honours. Frenkel received his PhD in Physical Chemistry from University of Amsterdam 1977. He then worked as a postdoctoral fellow at UCLA and later at Shell Research (Amsterdam), the Universities of Utrecht and Amsterdam, and at the FOM Institute for Atomic and Molecular Physics.

TUESDAY, 4TH SEPT. 2018
AT 4.00 PM

Director, IISc
will preside

FACULTY HALL, MAIN BUILDING
IISC. HIGH TEA: 5.00 PM

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