

**Dr. Lena Zuchowski**  
(Senior Lecturer, University of Bristol)

# 'From Randomness to the Arrow of Time'

**Monday 21st November 2022, 3pm, Berry Lecture Theatre**

The talk will trace the roots of different versions of the entropy-based Arrow of Time. It will be demonstrated that there are at least three different derivational routes to an Arrow of Time: starting from the Thermodynamic Entropy and inductively deriving the Empirical 2nd Law to ground the Empirical Arrow of Time; starting from a notion of randomness, which acts as a desiderata on the definition of Boltzmann and Gibbs Entropy, from which one can deductively derive the Statistical 2nd and then ground either the Universal Statistical Arrow of Time or the Local Statistical Arrow of Time.

The Colloquia will be followed by tea and coffee in the staff common room.  
For further details please contact [phys-exec-office@bristol.ac.uk](mailto:phys-exec-office@bristol.ac.uk)



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**Physics Colloquium – Autumn Term**