Contribution ID: **34** Type: **Seminar**

Des Johnston - (Wealth) Condensation

Friday 8 September 2023 15:00 (40 minutes)

We discuss a simple statistical mechanical model - the "zeta-urn" model, which displays a real space condensation transition. In the model L (indistinguishable) balls are distributed amongst N boxes and L, N are sent to infinity at some fixed ratio. The weight $p(n)$ for having n balls in a box is $1/n^{\beta}$.
Since the simplicity of the model allows for explicit evaluation of the partition function and the order of the transition can be tuned by varying β, it provides a useful toy model for illustrating/testing various finite size scaling concepts.

We also cynically relabel some of the quantities of the model to get more mileage out of it as a (highly non-serious) model of wealth condensation in an economy composed entirely of (very) rich people.