



## Seminar/Talk

# Universality of loop soups

**Peter Mühlbacher**

IST Austria

Host: Laszlo Erdős

Many quantum statistical mechanics systems can be represented by loop soups. In some cases it has been proved, in others conjectured, that phase transitions are characterised by changes in the structures of the corresponding loops. There are many such loops and the joint distribution of their lengths is conjectured to always (hence "universality" in the title) converge to the Poisson-Dirichlet distribution in three and higher dimensions. This talk will start with a definition of loop soups, list some heuristics to determine if a system can be written in terms of loops, and give a sketch of Schramm's proof for universality of a mean field model.

**Thursday, April 5, 2018 04:00pm - 06:00pm**

Big Seminar room Ground floor / Office Bldg West (I21.EG.101)



This invitation is valid as a ticket for the ISTA Shuttle from and to Heiligenstadt Station.

Please find a schedule of the ISTA Shuttle on our webpage:

<https://ista.ac.at/en/campus/how-to-get-here/> The ISTA Shuttle bus is marked ISTA Shuttle (#142) and has the Institute Logo printed on the side.