Contribution ID: **8**   Type: **Scheduled Talks**

The Ising magnetization field and the Gaussian free field

Wednesday, July 30, 2025 9:20 AM (1 hour)

I will define an (alternative to the FK-random cluster model) Edwards-Sokal representation of the Ising model using random currents. I will then discuss a scaling limit result which implies that the continuum Ising magnetization field and the Gaussian free field are naturally coupled. To the best of our knowledge, the existence of such a coupling was not predicted before. This extends the picture of bosonization of the planar Ising model.
Based on joint work in progress with Tomas Alcalde and Lorca Heeney.

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