

## **Non-ultralocality, affine Gaudin models and Chern-Simons theory**

*Wednesday, September 4, 2019 11:00 AM (30 minutes)*

Non-ultralocality is a long-standing open problem in classical integrable field theory which has precluded the first-principle quantisation of many important models. I will review a recent proposal for dealing with this issue, which relates it to the study of Gaudin models associated with affine Kac-Moody algebras. I will then go on to discuss its relation to another very recent proposal of Costello and Yamazaki who's starting point is a four-dimensional variant of Chern-Simons theory.

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**Session Classification:** Morning Session