

# SEMPARIS – Séminaires en région parisienne

<http://string.lpthe.jussieu.fr/semParis/>

## Forum de Physique Statistique @ ENS

**Mercredi 19 Janvier 2022, 14 :30**

LPENS, L367( please ask [xiangyu.cao@ens.fr](mailto:xiangyu.cao@ens.fr) for a zoom link )

Domaines : cond-mat.stat-mech

Titre : *Exploring quantum many-body physics with ultracold atoms*

Orateur : **Frédéric Chevy ( LPENS )**

Résumé : *By combining quantum mechanics and statistical physics, the quantum-many body problem is one of the most challenging problems in contemporary physics. In the past decade, novel experimental platforms have been designed to address it and among them ultracold atoms offer a unique flexibility thanks to which a large variety of experimental situations can be explored. In my talk, I will concentrate on the case of strongly correlated fermionic systems, and I will show how ultracold atoms could resolve long standing open questions about the nature of fermionic superfluidity as well as about the properties of impurities immersed in many-body background system.*

---