

# SEMPARIS – Séminaires en région parisienne

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## Forum de Physique Statistique @ ENS

**Mercredi 23 Fevrier 2022, 14 :30**

LPENS, Salle Djébar (29 rue d'Ulm)( please write to [xiangyu.cao@ens.fr](mailto:xiangyu.cao@ens.fr) for a zoom link. )

Domaines : cond-mat.stat-mech

Titre : *A journey from classical integrability to the large deviations of the Kardar-Parisi-Zhang equation*

Orateur : **Alexandre Krajenbrink ( SISSA )**

Résumé : *In this talk, I will revisit the problem of the large deviations of the Kardar-Parisi-Zhang (KPZ) equation in one dimension at short time by introducing a novel approach which combines field theoretical, probabilistic and integrable techniques. My goal will be to expand the program of the weak noise theory, which maps the large deviations onto a non-linear hydrodynamic problem, and to unveil its complete solvability through a connection to the integrability and the scattering theory of the Zakharov-Shabat system.*

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