

Im

Oberseminar Analysis

hält

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Appliquées**

einen Vortrag zum Thema

Non-linear Gibbs measures as mean-field limits

Abstract:

To certain non-linear Schrödinger (NLS) equations, one can associate an invariant Gibbs measure based on the conserved energy. This is the basic ingredient of the Euclidean approach to constructive quantum field theory, as well as the large-time asymptote for the stochastic non-linear heat equation.

I shall discuss a certain mean-field limit relating these Gibbs measures and the positive-temperature equilibria of the underlying many-body model (the Bose gas). A difficulty is that the Gibbs measure lives on low regularity distributional spaces, so that the non-linearity has to be understood in a renormalized sense. I shall put emphasis on the control of the renormalization procedure at the level of the quantum many-body model.

This is joint work with Mathieu Lewin and Phan Thành Nam.

Datum: **Donnerstag, 14. Oktober 2021**

Zeit: **15:15 Uhr**

Der Vortrag findet über das Videokonferenzsystem „Zoom“ statt.

Ansprechpartner: Prof. Dr. Ralph Chill

Der virtuelle Raum ist über folgenden Link erreichbar:

<https://tu-dresden.zoom.us/j/89887698744?pwd=TVR3djhXNkV2U1ZFMTJ3czBOd3c4dz09>

Meeting ID: 898 8769 8744 , Passcode: @8%qq2

Alle Interessenten sind herzlich eingeladen.