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Title

Bosonic mean field dynamics and semiclassical analysis

Abstract

I will present a summary of works started a few years ago with Z. Ammari about the bosonic mean field dynamics as a semiclassical problem on an infinite dimensional phase-space. The lecture will be divided in three parts:

- 1) I will recall the definition and properties of Wigner (or semiclassical measures) in the usual finite dimensional case.
- 2) This will be extended to the infinite dimensional case and differences with the finite dimension will be pointed out.
- 3) The mean field propagation of Wigner measures will be stated and explained in different cases.