

# JOURNAL CLUB: Quantum Analytical Mechanics

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12:00 to 13:00

Seminar Room

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The question about the existence of so-called *hidden* variables in quantum mechanics and the perception of the completeness of quantum mechanics are two sides of the same coin. Quantum analytical mechanics constitutes a completion of standard quantum mechanics based on the concept of stochastic trajectories in the configuration space of a quantum system. For particle systems, configuration space is made up out of their coordinates and, if relevant, their orientation. Quantum analytical mechanics derives equations of motion for these variables which allow a description of the measurement process as a dynamical physical process. After all, it is exactly these variables experiments are designed to interact with. The theory is not a replacement of Hilbert space quantum mechanics but a mathematical completion enriching our toolset for the description of quantum phenomena.

**Hosted by:** Journal Club