ICFO

SEMINAR: First-Quantized State Preparation though Helmholtz Green?s Functions

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November 16, 2026
12:00 to 13:00
Seminar Rooom

Some ideas for quantum algorithms in real-space. Ground state preparation in first quantization, using the integral form of the Schrodinger equation and a known ground state energy. Gaussians approximate both the potential and the convolution kernel of the Green's operator. Current ideas split into two variants: one iterates the fixed-point operator until it converges, and one uses the quantum singular value transformation (QSVT) to project onto the fixed-point subspace.

Hosted by: Prof. Dr. Antonio Acin