

Scaling limits of quantum dynamics of many-body systems

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ABSTRACT

We shall introduce various scalings for large quantum systems with pair interactions. Depending on the choices of the scalings and the statistics of the particles, we obtain Euler, Boltzmann, nonlinear Schrodinger or Vlasov equations. This talk will focus on the following two questions: 1. What are the meaningful scalings? 2. What are the analytic tools?