

Quasi-free variational models for bosons and fermions

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Outline of Lectures

- Lecture I: Many-body quantum mechanics
- Lecture II: Quasi-free states
- Lecture III: The quasi-free variational functionals
- Lecture IV: Bose-Einstein condensation, Super-fluidity, Super-conductivity

- J.P. Solovej, Many-Body Quantum Mechanics (Lectures draft)

<https://www.mathematik.uni-muenchen.de/~lerdos/WS08/QM/solovejnotes.pdf>

- M. Napiorkovski, R. Seiringer, J.P. Solovej, The Bogoliubov free energy functional I+II (CMP+ARMA)
- C. Hainzl, E. Hamza, R. Seiringer, J.P. Solovej, The BCS Functional for General Pair Interactions (CMP)
- C. Hainzl, , R. Seiringer, The BCS functional of superconductivity and its mathematical properties (JMP review)
- J. Dereziński, Bosonic quadratic Hamiltonians (JMP Review)