

LIST OF PUBLICATIONS

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148. (with D. Feliciangeli and S. Rademacher) *Persistence of the spectral gap for the Landau–Pekar equations*, preprint, arXiv:2009.06430
147. (with A. Deuchert) *Semiclassical approximation and critical temperature shift for weakly interacting trapped bosons*, preprint, arXiv:2009.00992
146. (with L. Boßmann and S. Petrat) *Asymptotic expansion of the low-energy excitation spectrum for weakly interacting bosons*, preprint, arXiv:2006.09825
145. (with N. Benedikter, P.T. Nam, M. Porta, and B. Schlein) *Correlation Energy of a Weakly Interacting Fermi Gas*, preprint, arXiv:2005.08933
144. (with N. Leopold, D. Mitrouskas, S. Rademacher, and B. Schlein) *Landau–Pekar equations and quantum fluctuations for the dynamics of a strongly coupled polaron*, preprint arXiv:2005.02098
143. (with K. Myśliwy) *Microscopic derivation of the Fröhlich Hamiltonian for the Bose polaron in the mean-field limit*, preprint arXiv:2003.12371, Ann. Henri Poincaré (in press).
142. (with S. Mayer) *The free energy of the two-dimensional dilute Bose gas. II. Upper bound*, J. Math. Phys. **61**, 061901 (2020). [10.1063/5.0005950](https://doi.org/10.1063/5.0005950)
141. (with J. Yngvason) *Emergence of Haldane pseudo-potentials in systems with short-range interactions*, J. Stat. Phys. **181**, 448–464 (2020). [10.1007/s10955-020-02586-0](https://doi.org/10.1007/s10955-020-02586-0)
140. (with N. Leopold and D. Mitrouskas) *Derivation of the Landau–Pekar equations in a many-body mean-field limit*, preprint arXiv:2001.03993
139. *The Polaron at Strong Coupling*, Contribution to the proceedings of QMath14: Mathematical Results in Quantum Physics, arXiv:1912.12509, Rev. Math. Phys. (in press). [10.1142/S0129055X20600120](https://doi.org/10.1142/S0129055X20600120)
138. (with M. Lewin and E.H. Lieb) *Universal Functionals in Density Functional Theory*, Chapter of a book on “Density Functional Theory”, edited by E. Cancès, G. Friesecke, and L. Lin, arXiv:1912.10424

137. (with E. Yakaboylu, A. Ghazaryan, D. Lundholm, N. Rougerie, and M. Limeshko) *A Quantum Impurity Model for Anyons*, preprint, arXiv:1912.07890, Phys. Rev. B (in press).
136. (with M. Napiórkowski) *Free energy asymptotics of the quantum Heisenberg spin chain*, preprint, arXiv:1912.01967
135. (with A. Deuchert and S. Mayer) *The free energy of the two-dimensional dilute Bose gas. I. Lower bound*, Forum Math. Sigma **8**, e20 (2020). [10.1017/fms.2020.17](https://doi.org/10.1017/fms.2020.17)
134. (with N. Leopold, S. Rademacher, and B. Schlein) *The Landau–Pekar equations: Adiabatic theorem and accuracy*, preprint, arXiv:1904.12532, Analysis & PDE (in press).
133. (with D. Feliciangeli) *Uniqueness and Non-degeneracy of Minimizers of the Pekar Functional on a Ball*, SIAM J. Math. Anal. **52**, 605–622 (2020). [10.1137/19M126284X](https://doi.org/10.1137/19M126284X)
132. (with M. Lewin and E.H. Lieb) *The local density approximation in density functional theory*, Pure Appl. Anal. **2**, 35–73 (2020). [10.2140/paa.2020.2.35](https://doi.org/10.2140/paa.2020.2.35)
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