

The Schrödinger-Newton-Hooke equation – a nonrelativistic limit for AdS perturbations

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I will present how the Schrödinger-Newton equation with a harmonic term, previously known from atomic physics (e.g. it describes self-gravitating boson gas in a harmonic trap), can be obtained as a non-relativistic limit of AdS perturbations. I will also present some properties of its solution, focusing on the ground states.

References

P. Bizoń, O. Evnin, and F. Ficek, *A nonrelativistic limit for AdS perturbations*, J. High Energy Phys. **12**, 113 (2018)