

Many-body interferometry of a Rydberg-dressed spin lattice

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Reference:

Nature Physics 12, 1095–1099 (2016);
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(link to the old arxiv: <http://arxiv.org/abs/1602.06313> [2])

URL:

<http://www.nature.com/nphys/journal/v12/n12/full/nphys3835.html> [3]

Rydberg-dressing allows for the introduction of controllable long-range interactions for ground state atoms. In this work, we realize a Rydberg-dressed Ising spin system and study the interaction induced growth of spin-spin correlations in an interferometric measurement. This enables us to benchmark the predicted tunability of Rydberg-dressed interactions.

- [RySQ](#) [4]
- [12.30.+u Universal quantum simulators with specific systems \(e.g. trapped ions, optical lattices, etc.\)](#) [5]
- [Result](#) [6]

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