

# Exploring quantum materials with a neutral atom processor

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In this talk, I will discuss two recent works exploring quantum materials that can be realized in PASQAL's quantum processing unit. I will discuss how one can study the physics of strongly correlated electrons with the help of a hybrid quantum-classical approach [1]. I will then discuss how the physics of amorphous quantum magnets can also be studied in our device [2].

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## References

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- [1] A. Michel, L. Henriet, C. Domain, A. Browaeys and T. Ayrat  
arXiv:2312.08065 (2023)
- [2] S. Julià-Farré, J. Vovrosh and A. Dauphin, arXiv:2402.02852 (2024)