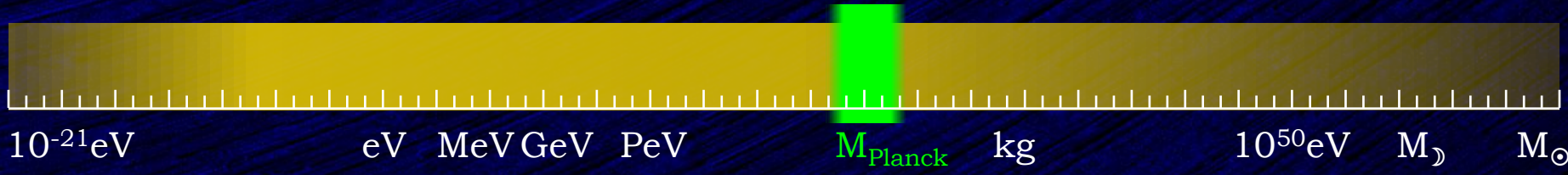
The Windchime Project:
Towards Gravitational Detection of Dark Matter in the Lab

arXiv:2203.07242

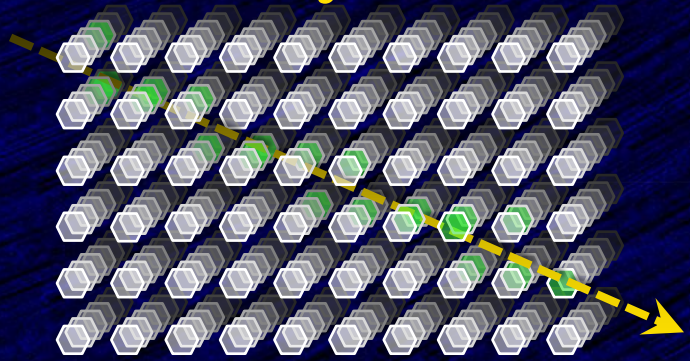


- ✓ Planck mass uniquely motivated
- ✓ Still accessible in lab
- ✓ Gravitational detection feasible

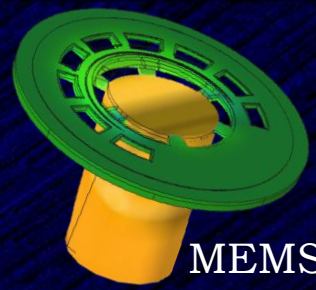
thanks to recent advances in quantum sensing. Need

- sensitive accelerometers
- quantum-enhanced readout
- large array

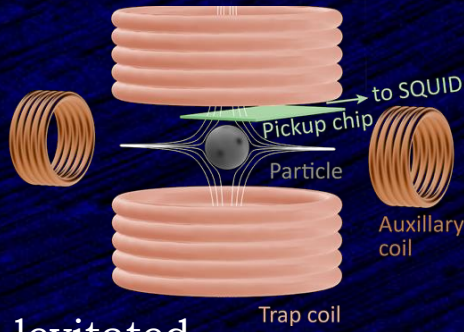
Search for Track in Array of Accelerometers



velocity sensing

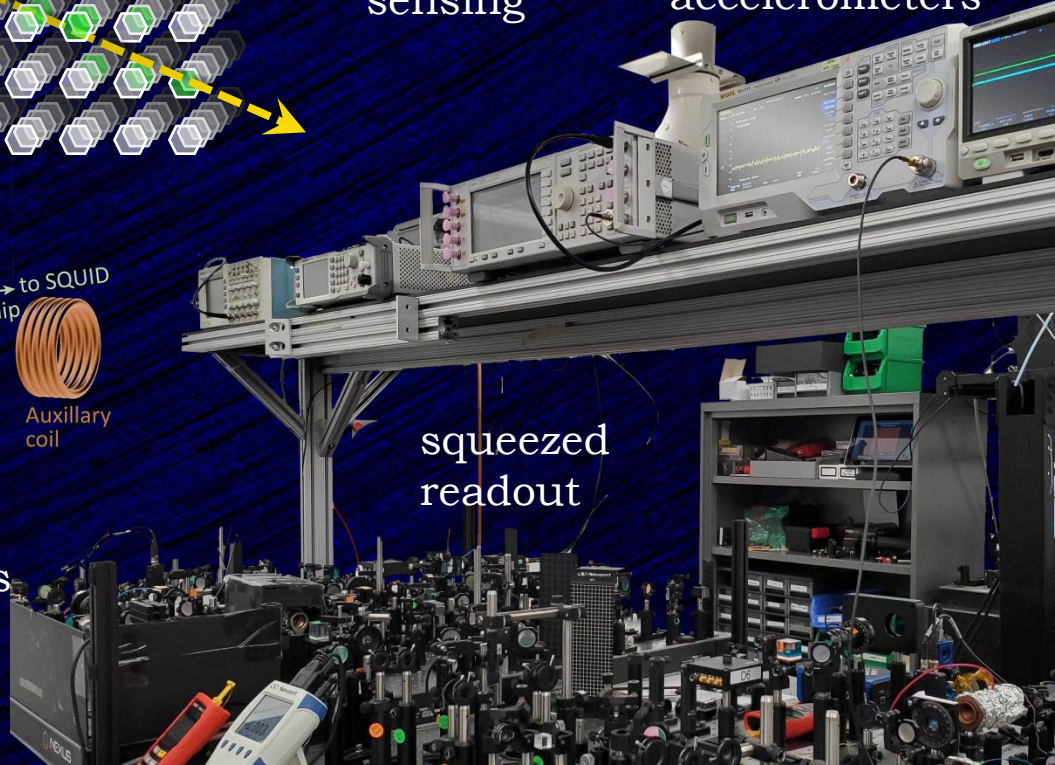


MEMS accelerometers



levitated superconductors

squeezed readout



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