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## Iason Baldes: "Connection to Dark Matter"

*Thursday, 14 November 2019 14:30 (1 hour)*

LISA will test scenarios of strongly supercooled phase transitions at the TeV scale by searching for a stochastic background of gravitational waves. I will discuss how such a phase transition can be closely tied to the relic abundance of dark matter in certain classes of models which feature close-to-conformal potentials. In confining phase transitions, for example, the yield of composite dark matter can be set in a process of hadronization as fundamental constituents enter the expanding bubbles. The gravitational wave signal from the phase transition gives a unique signature of such DM scenarios, complementary to collider, direct and indirect searches.

### **Summary**