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Type: **Afternoon Session**

## Status of non-supersymmetric models with GAMBIT

*Friday, 26 April 2019 18:35 (15 minutes)*

I will present the latest analyses of non-supersymmetric models from the GAMBIT global fitting project, covering axions, axion-like particles and scalar, vector and fermionic Higgs portal models stabilised by either a  $\mathbb{Z}_2$  or  $\mathbb{Z}_3$  discrete symmetry. These results incorporate various combinations of constraints from the LHC, direct and indirect searches for dark matter, dedicated axion experiments, vacuum stability and the observed relic density of dark matter (applied as either an upper limit or a strict requirement). They also include the impacts of theoretical uncertainties ranging from the temperature dependence of the QCD axion mass to nuclear matrix elements, Standard Model parameters and astrophysical halo modelling.

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**Track Classification:** Dark matter