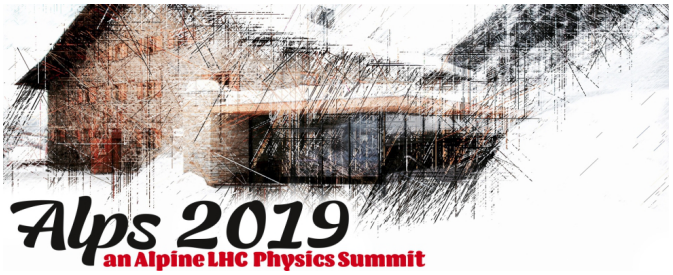

Contribution ID: **7** Type: **Afternoon Session**

Dark matter/ new physics searches at BESIII

Wednesday 24 April 2019 16:45 (15 minutes)

Many extensions of the Standard Model, motivated by recent astrophysical observations, include the possibility of a new type of weak-interacting degrees of freedom. The typical models include the Next-to-Minimal Supersymmetric Standard Model and Light Hidden Dark-sector model that predict the low-mass Higgs and dark bosons, respectively. The masses of these particles are expected to be a few GeV and thus making them reachable at the BESIII experiment. The BESIII has recently explored the possibility of light Higgs and dark bosons in several decay modes using the data collected at J/psi, psi(3686) and psi(3770) resonances. The large dataset corresponding to the J/psi resonance has also been utilized to perform the searches for invisible decays of light vector (V=omega, phi) and pseudo-scalar (P=eta, eta') mesons via J/psi –> VP decays. This talk will summarize the recent results of the BESIII experiment on these topics.

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