(Re)interpreting the results of new physics searches at the LHC

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SModelS v2.0: new features and developments

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SModelS is an automatized tool for the fast reinterpretation of LHC searches for theories beyond the standard model (BSM) using a large database of simplified model results. Until recently SModelS could only handle simplified models describing prompt decays, thus limiting its applicability to prompt MET searches and searches for stable charged particles. Version 2.0 generalizes the SModelS framework allowing for the description of more generic simplified models, which can now include a flexible number of attributes for the BSM particles, such as width, spin, charge, etc. A direct consequence of this new feature is the possibility for describing simplified models for displaced signatures as well as allowing for the description of spin dependent results. We present the novel features of SModelS v2.0 and the new experimental searches added to the database, which includes a variety of searches for long-lived particles.

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