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## LHC phenomenology of light pseudoscalars in the NMSSM

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After the discovery of the 125 GeV Higgs boson, the Next-to-Minimal Supersymmetric Standard Model (NMSSM), has become more interesting as a model for new physics since new tree-level contributions to the Higgs mass makes it easier to accommodate the relatively high measured value, as compared to the MSSM.

One very distinctive feature of the NMSSM, is the possible existence of a light singlet-like pseudoscalar. As this pseudoscalar may be lighter than the discovered Higgs boson without conflict with data, it may lead to LHC signatures rather different to what is usually searched for in terms of new physics.

We will discuss the channels in which light pseudoscalars may be discovered, focusing on cascade decays of heavier scalars as the direct production channels appear too difficult.

It is demonstrated that heavier scalars decaying to pairs of pseudoscalars or pseudoscalars and Z bosons may lead to discovery in a large part of parameter space.

This is especially important for the non-SM like of the two lightest scalars, as it may have a almost 100% branching ratio for decay into pairs of pseudoscalars. In such a case the discussed channels might be our only means of discovery, also for the scalar.

**Primary authors:** ROSZKOWSKI, Leszek (University of Sheffield (GB)); BOMARK, Nils-Erik; MUNIR, Shoaib; MORETTI, Stefano (STFC - Rutherford Appleton Lab. (GB))

**Presenter:** BOMARK, Nils-Erik

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