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A possible connection between neutrino mass generation and the lightness of a NMSSM pseudoscalar

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One of the interesting properties of the NMSSM is that it can accommodate a light pseudoscalar of order 10 GeV. However, such scenarios are challenged by several experimental constraints, especially those related to the fermionic decays of the pseudoscalar. In this talk we propose a model where the NMSSM field content is extended by two gauge singlets, with lepton numbers $+1$ and -1. This serves the twin purpose of generating neutrino
masses via the inverse see-saw mechanism and keeping the option of a very light pseudoscalar experimentally viable by opening dominant invisible decay channels of the pseudoscalar which help it evade the existing bounds.

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