## Solving five problems of particle physics and cosmology in one stroke

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## **Summary**

I will present a minimal extension of the Standard Model thats solves the strong CP problem, provides primordial inflation and a dark matter candidate (the axion) and explains the baryon asymmetry of the Universe and the smallness of neutrino masses. All of it, obtained from a single scale of new physics around 10<sup>8</sup> TeV. At low energies, the model reduces to the SM plus the QCD axion.

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