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Froggatt-Nielsen ALP

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Froggatt-Nielsen models typically predict the existence of a light axion-like particle, pushing the new dynamic to a very high scale.
In this talk I will focus on models based on Z_N discrete symmetries, which are counterexamples in which the new scale might in fact be much lower.
I will first chart the allowed parameter space from a set of theoretical considerations, and then focus on a minimal model based on Z_4 symmetry. For this, I will introduce an explicit renormalizable UV completion and study the model's phenomenology in detail, highlighting the interplay between the effects of the ALP and of the UV fields.

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