

Light dark sectors and nuclear reactors

Wednesday 9 July 2025 10:00 (30 minutes)

Nuclear reactors are an intense source of radiation emitted in the form of different particles of MeV-scale energy.

We revisit several constraints that past and current experiments set on the light weakly coupled particles. We find new, more stringent constraints on millicharged particles and dark photons. We also consider pair-production and/or upscattering of light dark matter, and derive new constraints on some classes of dark matter models.

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Session Classification: Plenary