

# Scalar-tensor perturbation mixing in Cosmology

*Thursday, 24 October 2024 11:30 (30 minutes)*

I will review the several new effects emerging from the combined non-linear action of scalar and tensor modes. Among these: scalar-induced gravitational waves, scalar fluctuation modulation of gravitational waves, anisotropies of the gravitational-wave background induced by large-scale scalar and tensor cosmological inhomogeneities, tensor-induced scalar perturbations. I'll also discuss the wave-optics limit of gravitational waves.

**Primary author:** Prof. MATARRESE, Sabino (Istituto Nazionale di Fisica Nucleare)

**Presenter:** Prof. MATARRESE, Sabino (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Cosmology