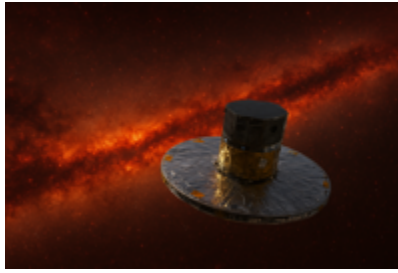


## The Gaia NIR mission and the engagement of the Spanish Community



Contribution ID: 30

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### The GaiaNIR simulator and BGM

*Friday 30 January 2026 09:30 (20 minutes)*

Simulations are a cornerstone in the preparation and design of any space mission. In the case of GaiaNIR, these simulations are critical for estimating the total number of detectable sources, which is expected to significantly exceed the current Gaia catalogue. Such data is essential for refining the mission's observation strategy and finalizing the instrument's technical specifications.

We summarize the work already conducted, specifically the star counts estimated for various wavelength ranges using Besançon Galaxy Model (BGM) included in the Gaia simulator. Furthermore, we present new tools and methodologies designed to enhance the precision of these estimates, accounting for the unique challenges of near-infrared detection and stellar crowding.

**Presenter:** MASANA, Eduard

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