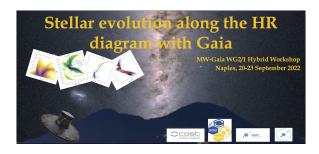
## Stellar evolution along the HR diagram with Gaia



Contribution ID: 84 Type: not specified

## Gaia and the upcoming WEAVE Cygnus-X Survey: disentangling the evolutionary status of one of the most massive star-forming regions of the Galaxy

Friday, 23 September 2022 11:50 (20 minutes)

In this contribution I introduce current work and future perspectives for the upcoming WEAVE high-resolution survey in the Cygnus-X complex. WEAVE, the next multi-object spectrograph at the 4.2m William Herschel Telescope, will provide high-quality spectra over the coming years for thousands of massive stars in the northern Galactic plane and, specifically, in several rich Cygnus OB associations. Using previous spectroscopic studies focused on Cygnus OB2 as a template, and combining WEAVE data and the expected accuracy that Gaia will reach in Cygnus-X (DR3 and forthcoming releases) we will be able to disentangle the global evolutionary status of the region and inspect the position of their most massive members in the Hertzsprung-Russell Diagram, considering the possibility that some of them were born with a different initial rotational velocity than the rest or have followed peculiar (e.g., not single) evolutionary paths.

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Session Classification: Synergies