

# Neutron-Capture elements with HRMOS

*Tuesday, 19 October 2021 09:00 (25 minutes)*

Recently, we have studied barium lines in high-quality spectra of two metal-poor giants in the Galactic halo. The hyperfine splitting effects on the barium lines seem to confirm the theoretical expectation that both r-process events and also s-process contribution by rotating massive stars have polluted the ancient halo of our Galaxy.

Nowadays, this kind of result can be achieved only for a tiny fraction of Galactic stars and future surveys cannot tackle this problem due to the low resolution ( $<30'000$ ) of their spectra.

Only HRMOS with its unparalleled capabilities will allow to change this situation and provide the final answers to the origins of the Heavy elements.

## Type

invited talk

**Primary authors:** CESCUTTI, Gabriele (Istituto Nazionale di Astrofisica (INAF)); FRANCHINI, Mariagrazia (Istituto Nazionale di Astrofisica (INAF))

**Presenter:** CESCUTTI, Gabriele (Istituto Nazionale di Astrofisica (INAF))

**Session Classification:** Day 2