

## Rare Elements from the First Stars to Today

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RM 184 NSH

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Understanding the origin of the elements is one of the major challenges of modern astrophysics. Elements along the bottom two-thirds of the periodic table—including arsenic, selenium, barium, europium, lead, thorium, uranium, and others—are mainly produced by neutron-capture reactions. Some had not been detected previously in stars useful for probing the nucleosynthetic fossil record, and the origins of all are not fully understood at present. My work focuses on abundances derived from high-resolution spectroscopic data of globular clusters and stars in the stellar halo. I will present recent observations of these elements that successfully muddy our understanding of when and how they were first introduced in the early Universe.