nowaGEA
network of women in academia
at the faculty of earth sciences,
geography and astronomy

Faculty of Earth Sciences, Geography and Astronomy

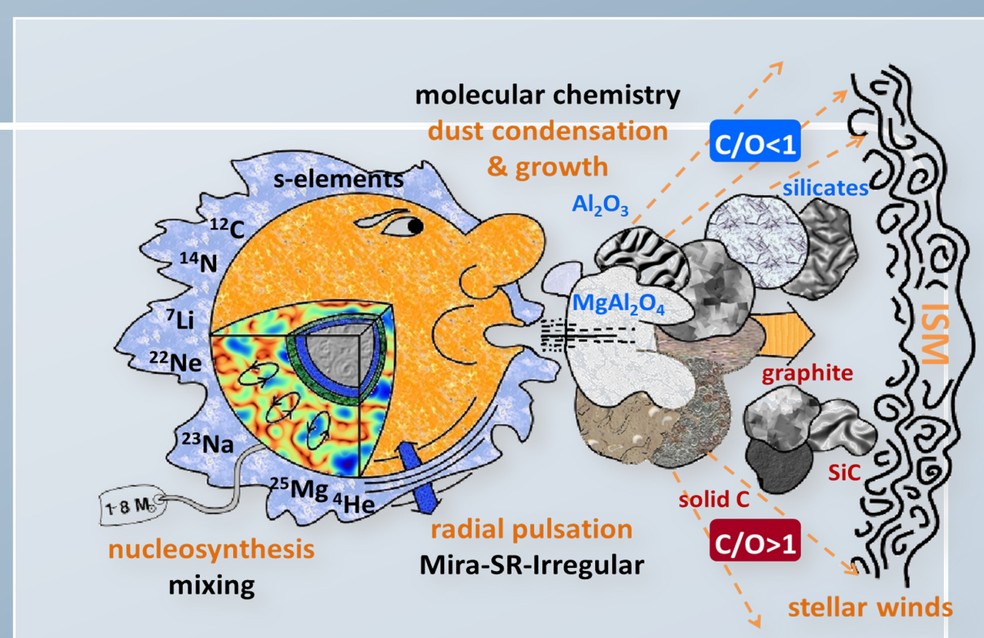
universität wien

Mentoring Lecture Series

Empowering Women to Develop Academic Careers

October 28, 2014, 16:00
Hörsaal 1, UZAII

Prof. Paola Marigo
University of Padova, Italy



The crackling phase of Asymptotic Giant Branch stars: a factory of new chemical elements

Close to the end of their lives, all stars with initial mass between 1 and 8 solar masses are expected to evolve through the so-called Thermally Pulsing Asympotic Giant Branch (TP-AGB), an extremely short phase characterized by several physical processes: recurrent thermal instabilities, a unique nucleosynthesis and mixing episodes, mass loss via stellar winds, radial pulsation and shocks, condensation and growth of solid particles. As a result of the complex interplay among all these events, TP-AGB stars expel into the interstellar medium large amounts of gas and dust, that are enriched with a large variety of new chemical elements.
In this framework, I will describe a present-day picture of the role of TP-AGB stars in the chemical evolution of the Universe, as it emerges from combining the latest results of detailed stellar models and accurate astronomical observations.

The science lecture (ca. 1 hour) is followed by a Question & Answer period on issues specific to career development of women in academia (e.g., options, barriers, how to overcome them, good practices and strategies).

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