

Massive Stars: From \hat{I}_{\pm} to \hat{I}_{\odot}

June 10-14, 2013

Rhodes, Greece

The 'Massive Stars' meetings have enjoyed more than 40 years of startling success since the first meeting in Argentina in 1971. Held every 4 to 5 years, these meetings aim to encapsulate the current state-of-the-art of our understanding of the physics of Massive Stars and their role in the Universe. For this 10th meeting in the Massive Stars series the Institute of Astronomy, Astrophysics, Space Applications and Remote Sensing of the National Observatory of Athens, invites you to the island of Rhodes, once home to one of the greatest astronomers of antiquity, Hipparchos, who is generally acknowledged as the founder of trigonometry, discoverer of precession and publisher of the first modern star catalog around 135 BC.

The conference will build on results from ongoing large-scale multi-wavelength surveys of massive stars which are being coupled with new theoretical advances dealing with stellar evolution and the processes which effect that evolution: mass-loss, rotation, convection, magnetic fields, multiplicity and environment. It will tackle important problems from birth, through main sequence evolution and until core collapse.

There will be a strong focus on relating the major theoretical uncertainties afflicting stellar evolution through these phases to the current observational picture. The impetus for this focus is derived from the realization that our understanding of massive star evolution is severely challenged by new observations powered largely by technological advances in telescopes and instrumentation. This has enabled new ways of looking at old long-standing problems enabling large-scale high-quality surveys of resolved stellar populations. As theoretical approaches try to keep pace with this increase in information the cracks in our assumptions concerning stellar evolution have become more apparent, even glaring. Whereas before it might have been possible to understand some of the stars some of the time it is now clear that understanding stellar populations is a considerable challenge and will require substantial efforts to resolve.

This is an exciting time as observations have revealed large gaps in understanding of the formation and evolution of massive stars. The huge impact that massive stars have on their immediate environment, parent galaxies, and through the Universe, demands better understanding of massive star evolution from alpha to Omega.

Looking forward to seeing you in Rhodes!

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