THE ASTRONOMY RESEARCH CENTRE

SEMINAR

Dr. Olivier Lai

Observatoire de la Cote d'Azur

"25 Years of Adaptive Optics on Mauna Kea"

Abstract

Mauna Kea is one of the premier sites worldwide in terms of atmospheric turbulence induced image quality for astronomical observation. As such it has been the site of many adaptive optics (AO) developments, starting in the early 90's. I first came to Mauna Kea in 1994 and worked on Mauna Kea adaptive optics projects for 20 years, at Keck, CFHT and in 2013, I was jointly appointed as adaptive optics scientist between Gemini Observatory and Subaru Telescope for three years before returning to France in 2016. In this talk, I review the developments of adaptive optics on Mauna Kea, and my personal experiences of this history. Astronomical observatories, and astrophysics itself, have undergone a profound transformation in the last twenty years towards "Big Science".

Adaptive optics instruments especially have become more expensive and are now too large to be built by observatories themselves: they are the result of multi-institute collaborations. This shift from competition to collaboration led to my Gemini-Subaru joint appointment. I will discuss some of the ideas and difficulties that emerged out of this collaborative framework, as well as the critical need to maintain small scale pathfinder experiments, illustrating the case in point with the very-wide-field GLAO prototype, `imaka.

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Thursday, November 2, 2017
4:00 p.m.
David Strong Building
Room C126