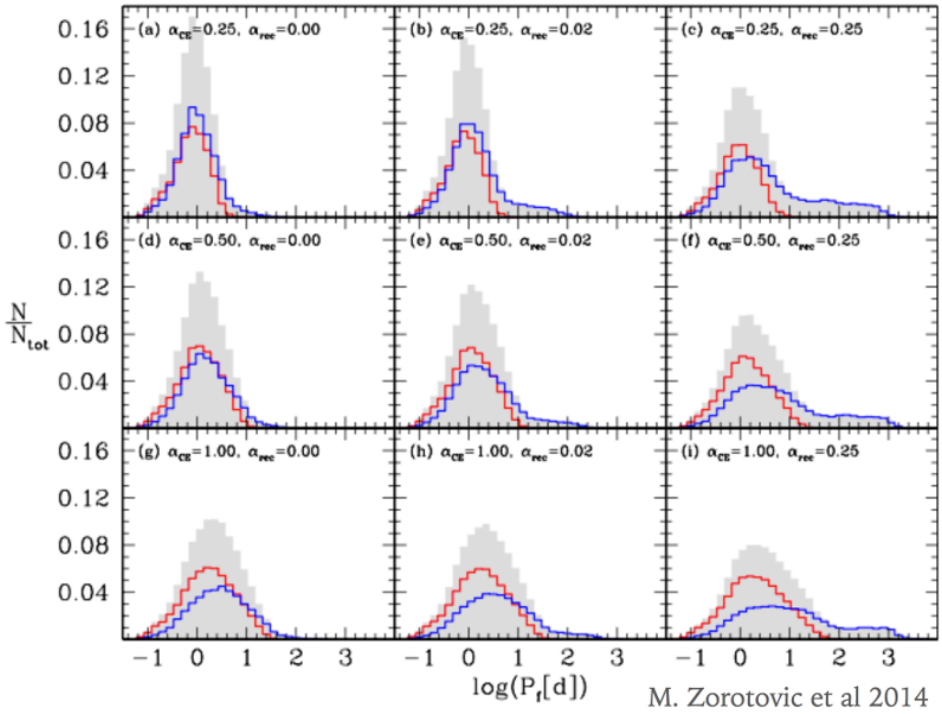
Instituto de Astronomía, sede Ensenada
UNAM, México

Seminario

Jueves 18 de Enero, 2018, 11 hrs (PST), Auditorio IA-Ensenada

Binary Star Evolution and Supernovae Ia Progenitors

Stephania Hernandez (Universidad de Valparaiso)



The unique potential of Type Ia Supernovae (SN Ia) as distance indicators, sufficiently bright to serve as yardsticks on cosmological distance scales, has made them some of the most important objects in the Universe and has led to the discovery of its accelerating expansion, and eventually to the award of the 2011 Nobel Prize in physics. However, there is some danger that the SN Ia that we see far away are not identical to the ones we detect today in the nearby Universe because we do not properly understand which systems are producing these famous eruptions. We cannot completely exclude that the properties of the progenitors changed over the age of the Universe, which in principal could cause systematic errors in the estimation of cosmological parameters. It is therefore crucial to elucidate what sort of systems the progenitors of SN Ia are. Although it is well established that SN Ia are related to the thermonuclear ignition of a carbon-oxygen core white dwarf (WD) that grew in mass, there is not yet a general consensus on the evolutionary binary star pathways leading to the explosion.

Organizadores: Miguel Aragon: maragon@astro.unam.mx, Jesus Hernandez: hernandj@astro.unam.mx