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国台学术报告 NAOC COLLOQUIUM

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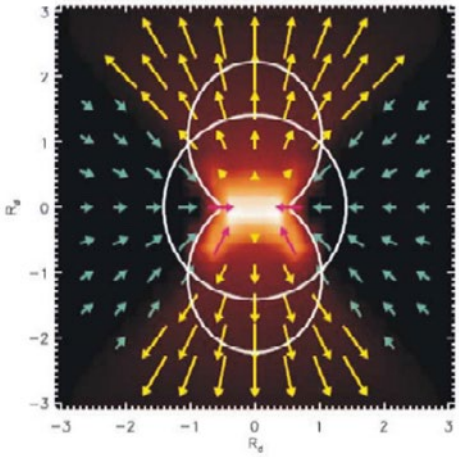
Time: Wednesday 2:30 PM, Sep.7th Location: A601, NAOC

A systematic study of star and cluster formation in the RMC

Dr. Jinzeng LI (NAOC)

Dr. Jinzeng LI (李金增) is an observational astrophysicist. He is a research professor majoring in fields of star and cluster formation and early evolution. After getting his Ph.D. at the Beijing Astronomical Observatory of the Chinese Academy of Sciences in 1999, he worked at the Institute of Astronomy of the National Central University of Taiwan till 2002, and later at the Armagh Observatory of the United Kingdom in 2005 as a postdoctoral research associate. He has been a visiting scholar to the Armagh Observatory, the University of Kent, ESO La Silla and the Hobat Observatory of Australia within the past years. He became an associate scientist of SAG3 of Herschel/SPIRE in 2006, actively involved in the GT Key Projects Gould Belt, HOBYS and the OT key project Hi-Gal, and got the team award from the Royal Astronomical Society of the United Kingdom in 2014. His major astronomical discoveries include: 1) A series of extreme jets immersed in strong UV radiation fields, 2) the twin cluster origin of the young open cluster NGC 2244, 3) Rosette Eye: the key transition phase of massive star formation; 4) multiple parsec scale bipolar molecular hydrogen flows associated with the massive binary AFGL961, forming a spider like structure, 5) An hourglass shaped outflowing system in association with a young massive star visible in the mid-infrared.

Abstract



The Rosette Molecular Cloud (RMC) is one of the most famous star forming regions in the Galaxy, where sequential OB cluster formation has been taken place during the past 6 Myrs. The Rosette Nebula, a well-known HII region embracing the young open cluster NGC 2244, is located in the north-west of the RMC. It's excavated by the tens of young OB stars of the central massive cluster, which represents the third generation of OB cluster formation in this region. We present a systematic study of the RMC and active star and cluster formation therein. This includes investigations of the mode of cluster formation on molecular cloud scales, a systematic search for Herbig-Haro jets and outflows, and a search for molecular hydrogen flows in especially the densest ridge of the RMC in the near infrared.

All are welcome ! Tea, coffee will be served at 2:15 PM.