You are welcome to nominate speakers to colloquium@nao.cas.cn. The video and slides of previous colloquia and more information can be found at http://colloquium.bao.ac.cn/.

国台学术报告 NAOC COLLOQUIUM

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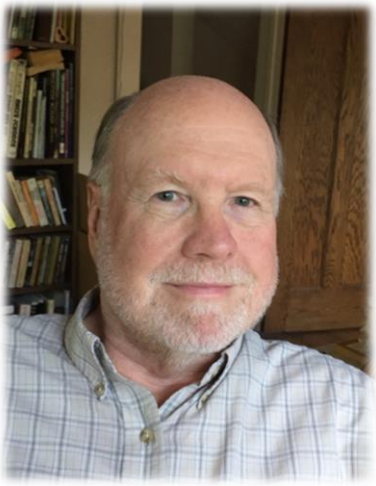
Time: Wednesday 2:30 PM, Jan.31th **Location: A601, NAOC**

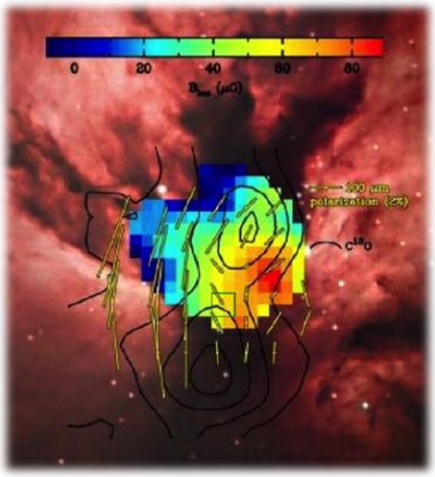
Magnetic Fields and Star Formation: Observations and Implications

Prof. Richard M Crutcher

University of Illinois



Richard Crutcher received his PhD in Astronomy at UCLA, and after a postdoc position at Caltech, became a Professor of Astronomy at the University of Illinois. He was a co-founder of the BIMA and CARMA mm-wave radio telescopes, and served as Senior Associate Director of the National Center for Supercomputing Applications. His astronomy research has focused on observations of magnetic fields in the interstellar medium in order to understand the role of magnetic fields in star formation.



Abstract

Stars are a fundamental unit of the universe, and their formation is a fundamental astrophysical process. The role of magnetic fields in star formation remains controversial today. I will discuss several molecular cloud and star formation theoretical ideas that have very different roles for magnetic fields and describe techniques for observing magnetic fields in regions of star formation. The talk will focus on the Zeeman effect, the only technique for directly observing magnetic field strengths. I will describe specific tests of various theories of the role of magnetic fields in star formation and the application of observational results in those tests. Finally, I will describe briefly a star formation scenario that meets all of the observational tests, and mention future observational opportunities.

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