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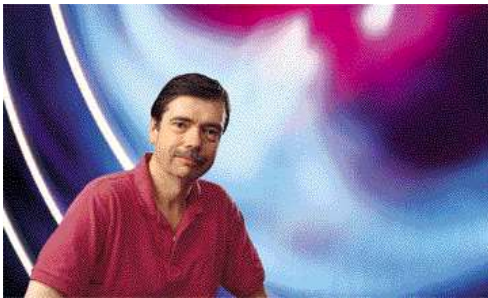
国台学术报告 NAOC COLLOQUIUM

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Time: Thursday 2:30PM, Jan. 22 Location: A601 NAOC

The Orion Nebula: Implications for the Obscuring Torus in AGN

Prof. Gary Ferland (University of Kentucky)



Gary J. Ferland, a professor of physics and astronomy, is specifically interested in the origin of elements such as hydrogen, nitrogen, oxygen, iron, and carbon. He has been a faculty member at the University of Kentucky for a very long time. And in May 2014, he was awarded a Lererhulme Trust Professorship at Queen's University Belfast, Ireland. His

research focuses on theoretical atomic & molecular physics and how matter in space produces the light we see. Ferland's team has been awarded two high-profile research grants in 2014, from the National Science Foundation and NASA's Theoretical Astrophysics program that will support their endeavors. Ferland's no stranger to these computer simulations, especially considering he built the industry standard. Ferland developed a computer program, Cloudy, to simulate and understand these processes. Cloudy is now one of the more widely-used theory code in all of astrophysics.

Abstract

When it became clear that an irradiated molecular cloud, the obscuring torus, was responsible for many of the observed properties of AGN, I decided to understand what happens when ionizing radiation strikes molecular gas. The nearest place where we can study this in detail is the Orion Complex. Ionizing radiation drives outflows and produces a rich emission line spectrum. I will discuss some surprising results which almost certainly also apply to AGN.



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