

Invited lecture

NEW PARADIGMS FOR THE NATURE OF THE LINE- AND CONTINUUM-EMITTING REGIONS OF AGNs

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Although the general picture of how AGNs function has become clearer in recent years, major observational puzzles threaten to undermine our fundamental beliefs about the AGN phenomenon. These puzzles include AGNs with extremely asymmetric emission line profiles, inconsistent multi-wavelength variability, rapid apparent changes in the direction of gas flow and the sizes of emitting regions, a curious insensitivity of gas in some narrow velocity ranges to changes in the ionizing continuum, and differing dependencies of polarization on gas velocity. I show that all these puzzles can be readily explained by off-axis variability. I discuss observational tests of the hypothesis.