BEL CAMPBELL, Assistant Professor
Ph.D. 1984, University of Arizona

Research Areas: *Optical, infrared and radio astronomy; multi-wave observations of the radiative and morphological properties of young stellar objects; star formation.*

Brief Description of Research:

Current research interests include the radiative properties of highly embedded active YSOs as a class, including those of any associated active phenomena, related age-, mass-, and environment-dependent variations, the morphological properties of such sources and those of their environs as a function of wavelength, their large and small scale structures, and how these structures may relate to the origin of active phenomena.

Imaging of active galactic star forming regions at a variety of wavelengths and over a large range in scale provides unique insight into the details of the environments and local structures of Young Stellar Objects (YSOs). Ongoing observational studies of such regions have two primary aims, including increasing the number of such objects currently known for statistical studies and deriving detailed geometries of several classic YSOs to connect the astrophysics of circumstellar accretion disks and powerful mass outflows, most of which are highly collimated. Observational data used in pursuit of these goals include high-quality optical images and spectroscopy between 0.6 and 1 micron; near-infrared photometry, polarization, and imaging; mid- to far-infrared maps and fluxes from IRAs; and sensitive, high-resolution mapping with the VLA.

Sample Publications:

"HST WF/PC Observations of R136: The Core of 30 Dordus," B. Campbell, D. Hunter, T.R. Lauer, R.M. Light, A. Code, J.A. Holtzman, J.J. Hester, J.A. Westphal, J.E. Gunn, and G.E. Danielson et al. Submitted 10/15/90 to *Astrophysical Journal (Letters)* for publication Spring 1991, special issue for initial HST results.

"Identification of New Young Stellar Objects Associated with IRAs Point Sources. III. The Northern Galactic Plane," B. Campbell, S.E. Persson, and K. Matthews. *Astronomical Journal, 98,* 643–658 (1989).

"Images of Star Forming Regions. II. The Circumstellar Environment of L1551 LRS 5," B. Campbell, S.E. Persson, S.E. Strom, and G.L. Grasdalen, *Astronomical Journal, 95,* 1173 (1988).