

galaxies ($z < 0.1$). In fact, it is in this circumnuclear environment that we are likely to find the gas and dust which may serve as fuel for the active nucleus.

In close collaboration with the astronomers of the Special Astrophysical Observatory (SAO-RAS, Russia), we have carried out an observational campaign aimed to study in detail the nuclear and circumnuclear regions of about 30 nearby AGN, and therefore to strongly improve the statistical significance of the results about the features of these regions.

The analysis and interpretation of this large amount of data will have a significant impact not only on the general understanding of the AGN nature and properties, but also on the Unification Theories which justify the differences observed in Type 1 and Type 2 AGN with simple effects of orientation of AGN with respect to our line-of-sight.

Invited lecture

PULSATION TOMOGRAPHY OF ROAp STARS

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We present recent results of the observational study of rapidly oscillating Ap (ROAp) stars. Spectacular progress in this field has been achieved by considering high time resolution spectroscopy in addition to the classical high-speed photometric measurements. Spectroscopic observations of roAp pulsations led to the discovery of a multitude of unexpected phenomena, generally pointing to an extreme vertical chemical nonuniformity of the atmospheres of magnetic CP stars. Detailed analysis of spectroscopic pulsational behaviour allows us to establish relationship between pulsations and vertical stratification of chemical elements.