

**THE ACTIVE PHASE OF THE HOT COMPONENT OF Z  
ANDROMEDAE**

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Z Andromeda is considered as the prototype of the symbiotic class. This system behaves essentially as the nearly uncontaminated nucleus of a young planetary nebula. The parameters of its hot component ( $R=0,07 R_0$ ,  $T > 10^5$  K) show that it lies close to the CSPN in the HR diagram (see Fernández-Castro et al. 1988). During the IUE lifetime (1978 onward), Z And experienced a phase of quiescence followed by an active phase which, starting in April 1984, lasted until about July 1986. Since then the star is recovering its quiescent appearance.

A multiwavelength study of the quiescence and activity phase of Z And shows that:

(a) In quiescence the energy distribution is typical of a very hot source ionizing an extended nebula which is fed by part of the wind lost by a cool giant companion, while accretion effects are negligible in the energetics of the system.

(b) In the outburst, the activity itself is superimposed to orbital variations. The ejection of an optically thick shell and the development of a moderately high velocity wind from the hot star are clearly seen at certain stages of the outburst. Those episodes could even have changed the normal behaviour of the system. A careful analysis of the available UV high resolution spectra will provide us with some more details about the nature of the energy sources of the system.

Theoretical models predict that further evolution of the system will turn Z And into a close binary consisting of two white dwarfs surrounded by an expanding planetary nebulae. A complete study of the system will be published elsewhere.

### References

Fernández-Castro, T. , Cassatella, A. , Giménez, A. and Viotti, R. 1988, Ap. J. 324, 1016.