Stellar populations in nearby low luminosity AGNs

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1. Young stars in the nuclei of eleven low luminosity AGNs

We present high-dispersion (0.44 Å per pixel) long slit spectra of a sample of 40 nearby active galaxies, selected from the atlas of low luminosity AGNs of Ho, Filippenko, & Sargent (1995). These spectra were obtained with the WHT telescope, using the ISIS spectrograph, and cover a wide spectral range, from 3600 Å to 5250 Å.

Eleven of the galaxies of the sample have nuclei which show strong Balmer absorption lines (from H13 to Hδ) in their spectra. These lines are strong in young main-sequence stars, and they are good signatures of recent star formation. We have compared the growth curves of H8 and Hδ in some of our galaxies with the models of González Delgado & Leitherer (1999) (see also Mollá et al. 1999, this conference). We have found that these curves can be well fitted by models with $T_{\text{eff}} \sim 25000$ K and $\log g = 4 - 5$.

Of the 14 Seyfert 2 galaxies of our sample 6 (43%) show these signs of recent star formation, whereas only 4 of the 26 (15%) LINERs and transition objects do. This suggests that the stellar populations in LINERs and Seyfert 2 are different.

References

Mollá, M., Díaz, A. I., Álvarez Álvarez, M., & González Delgado, R. M. 2000, this conference