

## HST FAR-UV IMAGING OF M 31, M 32 AND NGC 205

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Direct measures of luminosity functions, UV fluxes and colors of the hot stars that produce the UV turn-up in the SED of ellipticals and spiral bulges is the scientific goal of the HST observations presented here (see Bertola *et al.* 1995 for details). We concentrated our analysis on the hot stellar content of the M31 bulge. HST/FOC f/48 images were analyzed as observed (before the repair mission) through the F150W broad-band UV filter. We find that both individual stars and *unresolved* objects contribute to about 50% of the UV (1200-2450 Å) flux. Making use of the isochrones calculated by Bertelli *et al.* (1994) and Chiosi *et al.* (1994) together with the models of population synthesis presented by Bressan *et al.* (1994), we constructed theoretical CMDs to be compared with the CMD obtained by combining our F150W observations with the F175W observations of King *et al.* (1992). We conclude that the stars we resolved in M31 are classical P-AGB stars belonging to an old standard metallicity population. However, the P-EAGB and AGB-manqué stages as well as H-HB stars could be the source of the diffuse UV emission.

**References**

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