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**A CALL FOR OPTICAL PHOTOMETRY AND SPECTROSCOPY OF  
ACTIVE COOL STARS TO COMPLEMENT  
ROSAT X-RAY OBSERVATIONS**

The ROSAT project is an international collaboration between the United Kingdom, West Germany and the USA. The satellite is due to be launched on a Delta-II rocket from Cape Canaveral on May 31st 1990 and consists of two co-aligned imaging telescopes: The German X-ray telescope (XRT) operating in the soft X-ray band (6-100 Å), and the UK Wide Field Camera (WFC) operating at extreme ultra-violet (XUV) wavelengths (60-600 Å). ROSAT has two main mission objectives to achieve during its 2-3 year lifespan. Firstly, a six month all-sky survey of soft X-ray sources with a higher sensitivity than previously possible, extending into the XUV region of the electromagnetic spectrum which has so far remained largely unexplored. Secondly, there will be a programme of pointed observations for detailed studies of hundreds of individual targets.

The purpose of this communication is to solicit optical photometry and spectroscopy of some of the active cool stars which will be monitored by ROSAT during the all-sky survey. Simultaneous optical/XUV observations will be valuable in mapping the magnetically defined structures which exist in these stars in their photospheres, chromospheres and coronae. The ROSAT survey is in many ways ideal for such an investigation. The scanning method employed means that objects will be observed for about a minute once every ninety minute satellite orbit over the duration of their visibility to ROSAT. This duration varies from 5 days to several months, depending on the positions of the objects.

Targets to be included in this campaign are members of the BY Dra class (BY Dra, CC Eri e.t.c.), the RS CVn class (AR Lac, CF Tuc e.t.c.) and rapidly rotating single dwarfs (AB Dor, PZ Tel). The target timeline is moderately well known and some of the potential study objects will be visible to ROSAT for several weeks enabling a detailed study of the correlation between XUV emission from active coronal regions and starspot locations found by cotemporal optical diagnostics.

Observers interested in participating in a coordinated campaign should in the first instance contact the undersigned giving details of facilities and particular objects of interest.

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