

(Quasi-) simultaneous X-ray and TIGRE observations

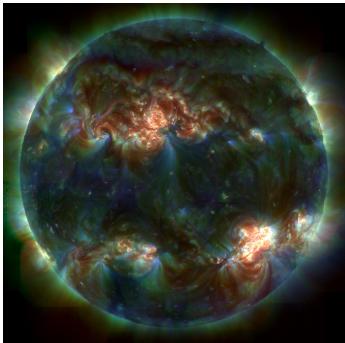
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TIGRE workshop - December 19, 2016

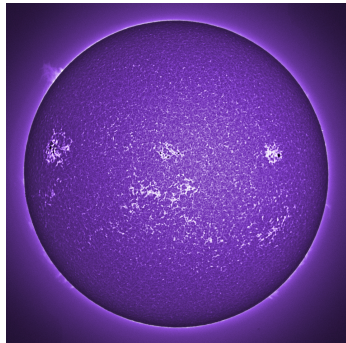
X-ray and Ca II emission



(TRACE three color mosaic)

X-rays

- + no photospheric emission
- observable from space

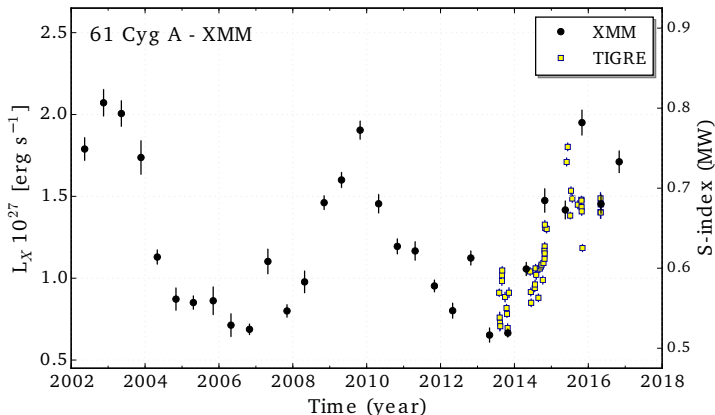


(Gary Palmer, July 2005, calcium-K filter)

Ca II H&K

- + observable from ground
- photospheric and basal emission

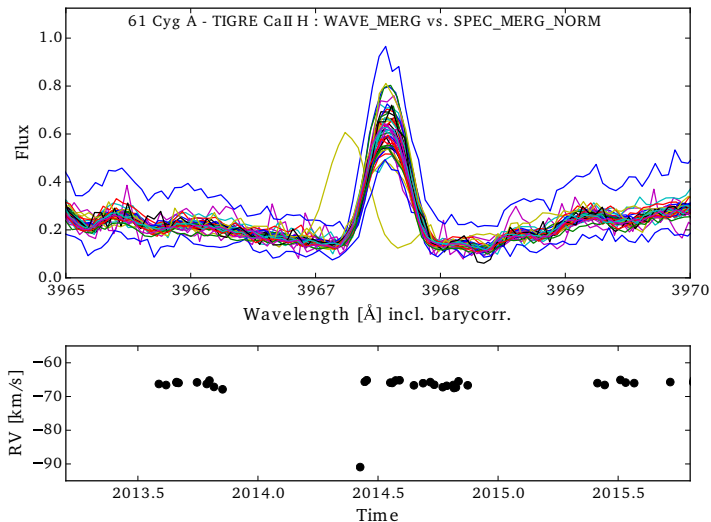
XMM activity cycle monitoring supported by TIGRE



- 61 Cyg A (HD 201091) - K5V
- TIGRE: 47 spectra
- S-index from standard-pipeline, converted to Mt. Wilson S-index
- $\langle \log R'_{HK} \rangle = -4.79$ (-4.86 ... -4.74)
converted ala Noyes/Hartmann (1984)

(J. Robrade)

XMM activity cycle monitoring supported by TIGRE



(J. Robrade)

Calcium activity index versus X-ray surface flux

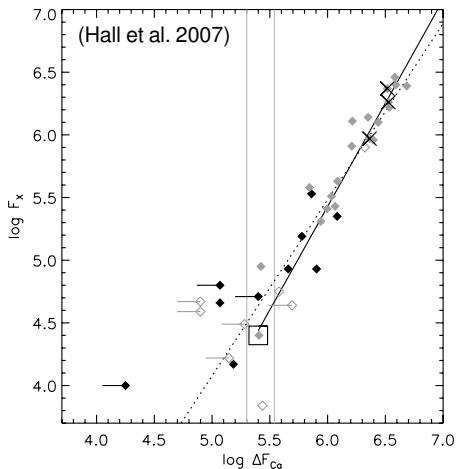


Fig. 13.— Coronal flux (from ROSAT measurements) vs. excess chromospheric flux. The good solar analogs are well matched by a power law with exponent 1.41. The square shows the location of the mean Sun.

Calcium activity index versus X-ray surface flux

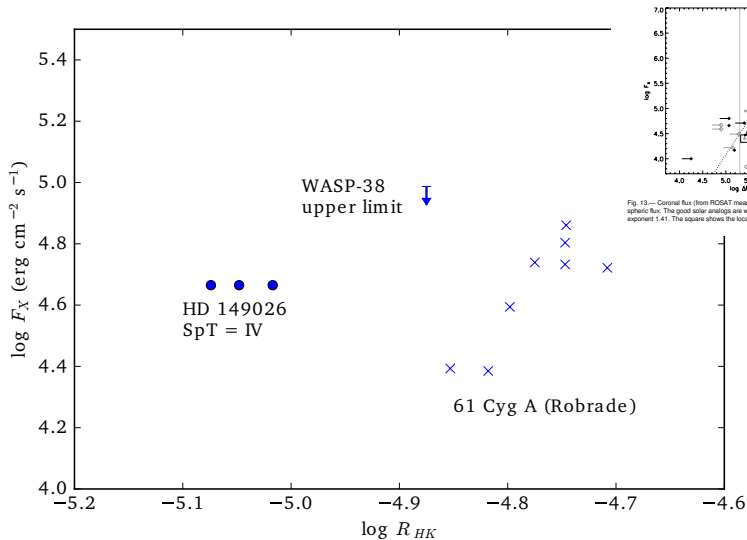
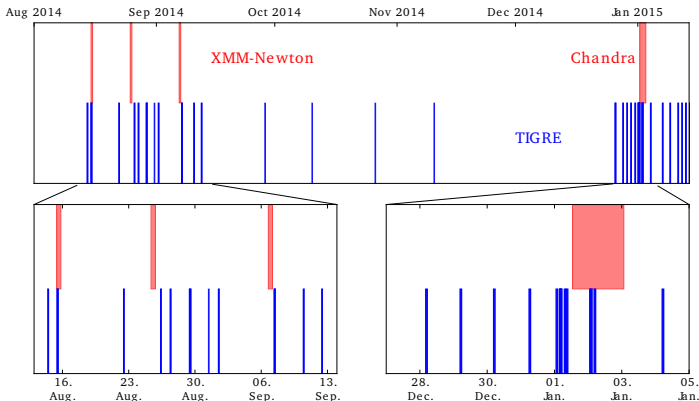


Fig. 13.— Coronal flux (from ROSAT measurements) vs. excess chromospheric flux. The good solar analogs are well matched by a power law with exponent 1.41. The square shows the location of the mean Sun.

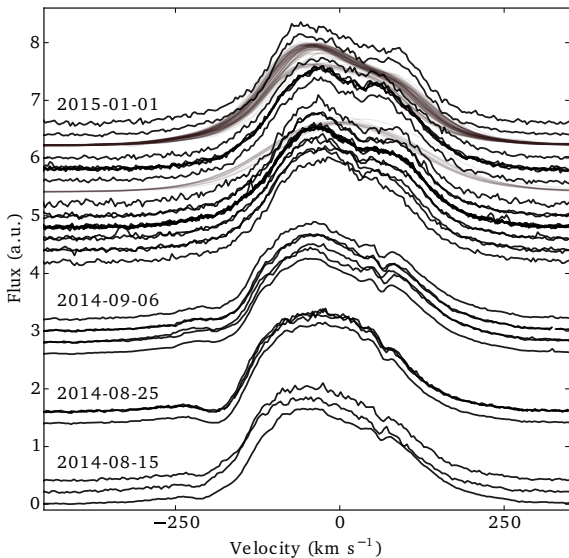
Monitoring of T Tauri



- T Tauri N - early K, 1-2 Myr, triple system with tight binary T Tauri Sa and Sb
- all three stars likely accreting
- densely sampled by TIGRE - determine H alpha profile and equivalent width
- H α EW \sim 80 - 100 Å

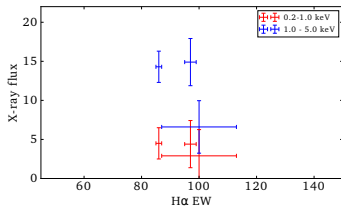
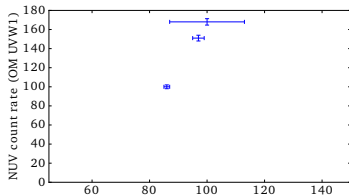
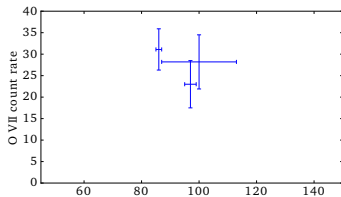
(P. C. Schneider)

Monitoring of T Tauri - H α profiles



(P. C. Schneider)

Monitoring of T Tauri - X-ray/UV correlations



(P. C. Schneider)