



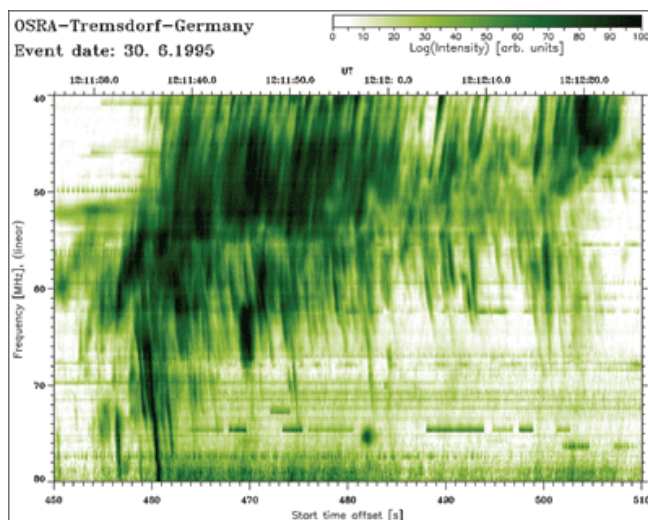
HIGHLIGHTS: this week in A&A

Volume 474-2 (November I 2007)

In section 9. The Sun

"The electron acceleration at shock waves in the solar corona" by R. Miteva and G. Mann, *A&A* 474, p. 617

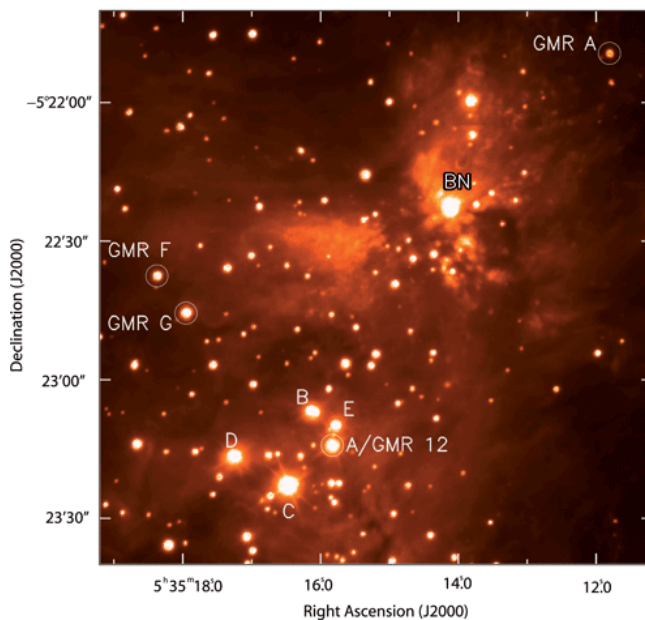
The solar corona shows transient enhancements of its radio emission through electrons that are accelerated at shocks generated by flares or coronal mass ejections. This paper presents a novel approach to explaining this electron acceleration in three steps, including whistler waves in gyroresonance with the electrons. Based on this, the "herring-bone" fine structure of solar type II radio bursts can be understood.



In section 5. Galactic structure, stellar clusters, and populations

"The distance to the Orion nebula" by K.M. Menten, M.J. Reid, J. Forbrich, and A. Brunthaler, *A&A* 474, p. 515

Recent developments in VLBI (phase referencing) allow accurate distance determinations using the classical parallax technique, resulting in three recent determinations of the distance to the Orion nebula star cluster (ONC). The authors of the paper published in this issue obtained a value of 414 +/- 7 pc from a sample of four stars. This brings Orion ten percent closer than was previously assumed with some consequences for age estimates, but what is impressive point is the accuracy attained by these measurements.



In section 1. Letters

"The X-ray soft excess in classical T Tauri stars" by M. Güdel and A. Telleschi, *A&A* 474, p. L25

The authors study the nature of the soft X-ray excess they have discovered in accreting T Tauri stars and show that it is not correlated to the UV excess usually attributed to accretion column emission. It correlates instead with the integrated X-ray luminosity of the stars. This indicates the substantial influence of accretion on the X-ray properties of TTS, although the details of the interaction between accretion column and stellar corona which gives rise to the soft excess, remain uncertain.