

## **On the Massive Star Origin of $^{26}\text{Al}$ in the Cygnus Region**

S.Plüschke, R.Diehl, U.Wessolowski (MPE Garching), D.H.Hartmann (Clemson University), U.Oberlack (Columbia University NY)

The COMPTEL map of the 1.809 MeV line, attributed to the radioactive decay of  $^{26}\text{Al}$ , shows significant excess emission in the Cygnus region. We present an analysis of this emission using COMPTEL data accumulated over eight years. Previous studies suggested that this flux is due to the integrated, but unresolved, nucleosynthesis from young, massive objects like Wolf-Rayet stars and core collapse supernovae. Beyond the known WR stars and SNRs we also include OB-associations to model the Cygnus region. We carry out population synthesis studies to determine the time dependend production of  $^{26}\text{Al}$  and also kinetic as well as radiative energy. We compare various outputs of our OB-association model with recent measurements in the Cygnus region. Furthermore we consider the impact of enhanced  $^{26}\text{Al}$  yields that can occur in a fraction of massive, close binary systems.