## Search for cluster candidates in the UKIDSS database

 $\begin{array}{c} {\bf Mario \ Gennaro, ^1 \ Wolfgang \ Brandner, ^1 \ Thomas \ Henning ^1} \\ {\bf and \ Andrea \ Stolte ^2} \end{array}$ 

 $^1{\rm Max}\mathchar`-Planck-Institut für Astronomie, Königstuhl 17, 69117 Heidelberg, Germany<math display="inline">^2{\rm I}.$  Physikalishes Institut, Universität Köln, Zülpicher Str. 77, 50937 Köln, Germany

**Abstract.** UKIDSS GPS is a deep and high-angular-resolution survey of the Galactic plane in the J, H, and K bands. Using this survey, we searched the inner region of the Galaxy ( $|l| < 10^{\circ}$ ) for young cluster candidates associated with molecular bubbles (MBs). The latter are observed in the mid-infrared survey GLIMPSE II. The underlying idea is that MBs may be blown out by powerful sources, such as young O and B stars; some of the MBs in the sample are indeed associated with HII regions, a hint of the presence of young stars. One of the major observational problems in the Galactic plane is the high degree of interstellar absorption and its spatial variability. A significant effort is also devoted to quantifying this issue.

Keywords. surveys, open clusters and associations: general, infrared: stars

The full poster (in pdf format) is available at http://www.astro.iag.usp.br/~iaus266/Posters/pGennaro.pdf.