# SPITZER AND HERSCHEL OBSERVATIONS OF TNOs: POTENTIAL AND PITFALLS

A. W. Harris[1]

[1] *German Aerospace Center (DLR), Inst. Planetary Research, Rutherfordstr. 2, 12489 Berlin. (Germany)*

Thanks largely to the Spitzer Space Telescope, thermal-infrared observations of TNOs have begun to contribute significantly to our understanding of these fascinating objects. After its launch ESAs Herschel Space Observatory will hopefully continue where Spitzer has to leave off. Thermal-infrared photometry can be used to provide crucial information on sizes and albedos and, potentially, on thermal inertia and surface properties. However, simply adopting techniques used for main-belt and near-Earth asteroids can lead to large errors. Thermophysical model calculations and published data sets are used to highlight and discuss the problems associated with the interpretation of thermal-infrared data on TNOs. It is shown how simple considerations applied to published data on Centaurs and TNOs lead to a significant but relatively low representative value of thermal inertia, an indicator of regolith porosity, of 10 - 20 $\mathrm{Jm^{-2}s^{-0.5}K^{-1}}$.