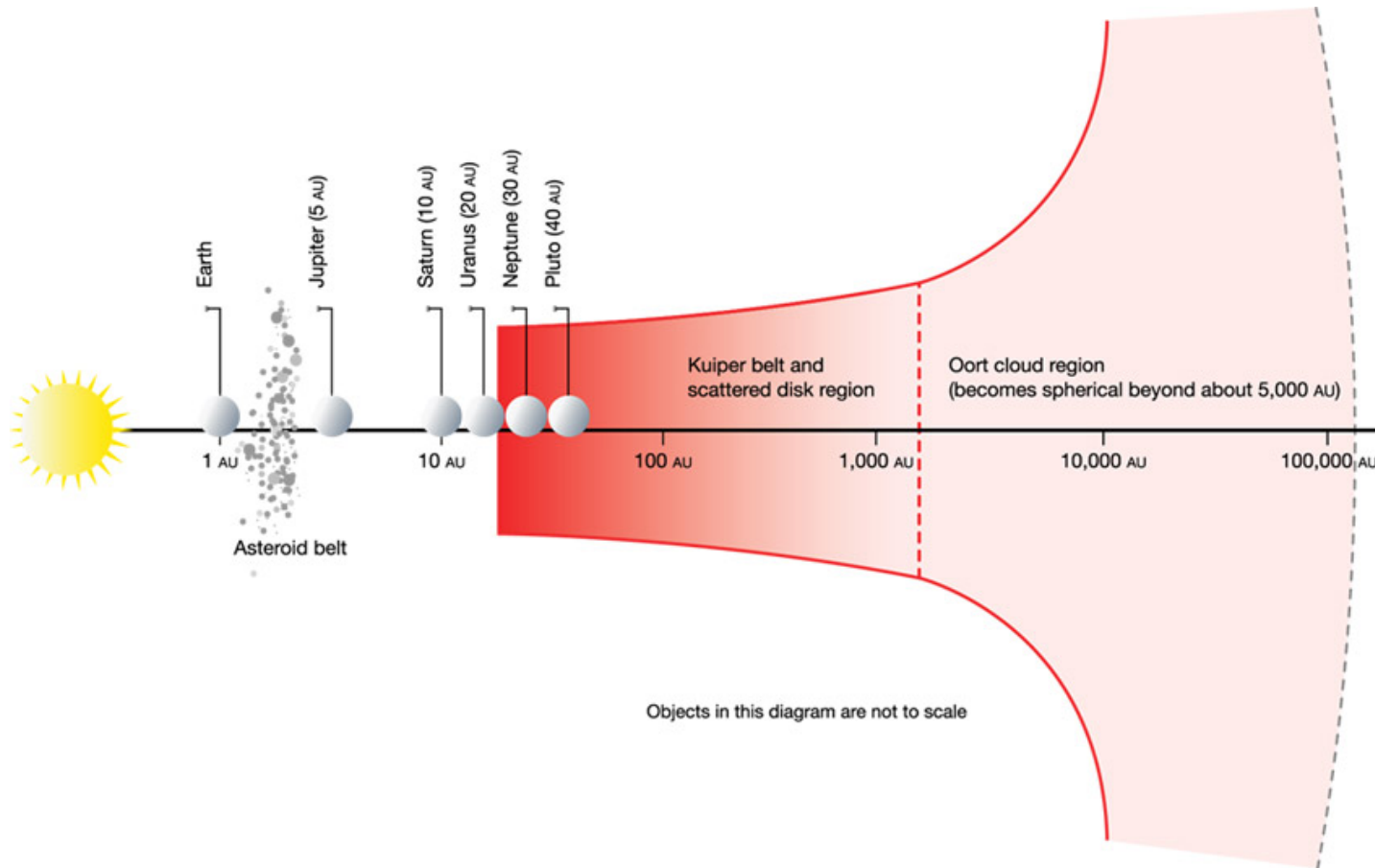


## Dwarf planets and other icy bodies in the outer solar system:

### Basic physical properties



A. Stern 2003, Nature

T. G. Müller, N. Thomas, H. Bönhardt, E. Lellouch, B. Swinyard, D. Jewitt et al.

## Main goals

- study and characterisation of dwarf planets and dwarf planet candidates
  - sizes and albedos for a representative subset of TNOs, Centaurs and Scattered Disk Objects
  - study and characterisation of different populations in the outer solar system (Inner Centaurs, Outer Centaurs, Scattered Disc objects, Plutinos, Cold EK disc objects, Hot EK disc objects) with respect to size distribution and taxonomic classification
  - investigations of surface/regolith properties, like thermal inertia, roughness and emissivity
  - exploration of the FIR wavelength range, either via spectroscopy (the very brightest objects only) or via PACS/SPIRE multi-band photometry
  - study of transition objects between different populations; investigations of the link to short period comets and the effects of surface modifications
  - shape information from thermal lightcurves will give important hints on the formation and collisional evolution
- **to "color" the picture of the outer regions of our solar system & locate the comet source**