## Properties of binaries from photometric data

Peter Scheirich (Astronomical Institute, Czech Academy of Sciences, Ondrejov)

I briefly describe an inversion method for obtaining some properties of binary asteroids from long-period component of their lightcurves. There is assumed an ellipsoidal shape for both component and an elliptical or circular orbit of the secondary.

The emphasis is placed on determining pole of the mutual orbit and properties from which a bulk density of the system can be determined. Particular care was taken to assess the uncertainties of these parameters and their dependence on the sky arc spanned by an asteroid during the observation. I showed that for short arcs the uncertainty of the bulk density could grow to very high levels, and it seems to be anticorrelated with the length of the arc. Therefore, the sky arcs of observed binaries would have to be extended as much as possible.