

OPTICAL OBSERVATIONS OF RADIO STARS WITH  
THE ASTROLABE AT VALINHOS<sup>1</sup>

L.B.F. Clauzet and R.M. Atalla

Instituto Astronomico e Geofísico  
Universidade de São Paulo  
Brasil

ABSTRACT: The use of radio stars can provide a direct connection between the radio reference frame and the fundamental optical reference system.

Three radio stars, selected from the galactic object list established by the IAU Commission 24, have been systematically observed since 1980 with the astrolabe of the University of São Paulo "Abrahão de Moraes" Observatory at Valinhos ( $\psi = -23^{\circ}00'$ ;  $\lambda = +3^{\text{h}}07^{\text{m}}$ ). These stars (FK4 nrs 306, 309 and 616) have been observed inside the fundamental groups, thus allowing the use of standard reduction procedures.

From the mean residuals in zenith distance we computed  $\Delta\alpha$  and  $\Delta\delta$  corrections and the corresponding mean square errors. Results are referred to the FK4 system.

Key words: radio-stars; astrolabe

To be published in *Astronomy and Astrophysics Suppl.*

1. Work partially supported by FINEP, CNPq, and FAPESP.

R.M. Atalla and L.B.F. Clauzet: Instituto Astronomico e Geofísico, USP, Caixa Postal 30.627, São Paulo 01051 SP, Brasil.