

**RADIO OBSERVATION OF AUGUST 11th, 1999 PARTIAL SOLAR
ECLIPSE AT 406.7 MHz AT BELGRADE OBSERVATORY**

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Radio observations of the Solar eclipses have important role in the radio-physical solar investigations. They provide opportunity to determine some characteristic astrophysical parameters of the Sun (i.e. radio diameter of the Sun, determination of special areas active in radio part of electromagnetic spectrum which corresponds to some optical features, calculating the total effective temperature of Solar disc, etc.) with very high accuracy even with the modest radio astronomical equipment such it was as our case.

On August 11th 1999, during the partial solar eclipse observed in Belgrade (97.7% phase) we obtained a curve which briefly shows changes in the total Solar flux density. It was recorded with a radio astronomical superheterodyne radiometer at the frequency of 406.7 MHz with 1.2 m parabolical dish which was pointed at the position of the middle of the totality eclipsed Sun. So, we could cover the whole event.

In the same paper we present also air temperature changes during the eclipse. It was registered at the site of radio astronomical measurements with two minute steps and accuracy of 0.1°C .

The curves showing changes in Solar flux density and air temperature are presented below (Fig. 1, 2).

The final results will be presented in the poster paper at the XII National Conference of Yugoslav Astronomers.

CHANGE OF TOTAL SOLAR FLUX DENSITY

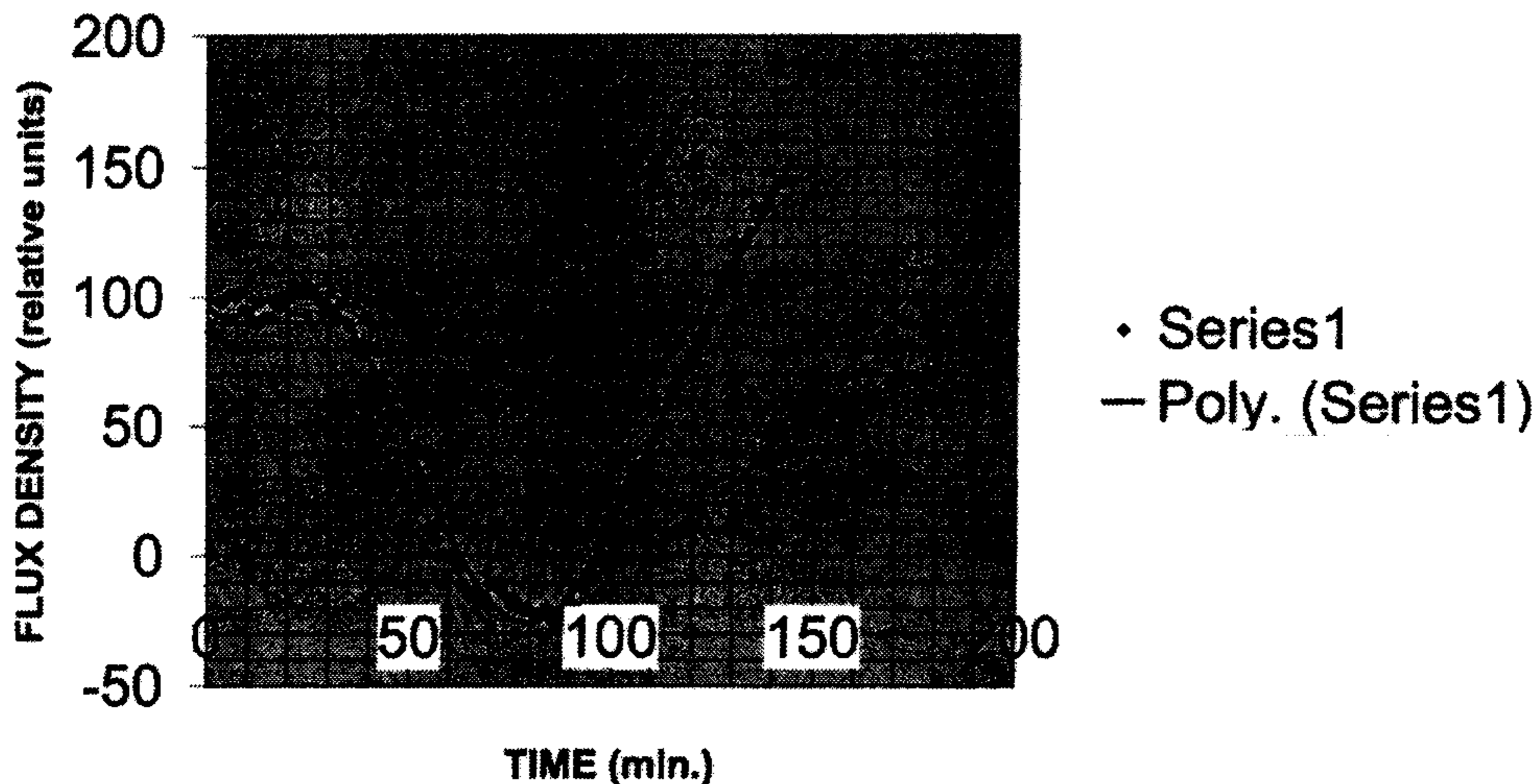


Fig. 1 Change of Solar flux density in time (UTC) during the Solar eclipse.

CHANGE OF AIR TEMPERATURE

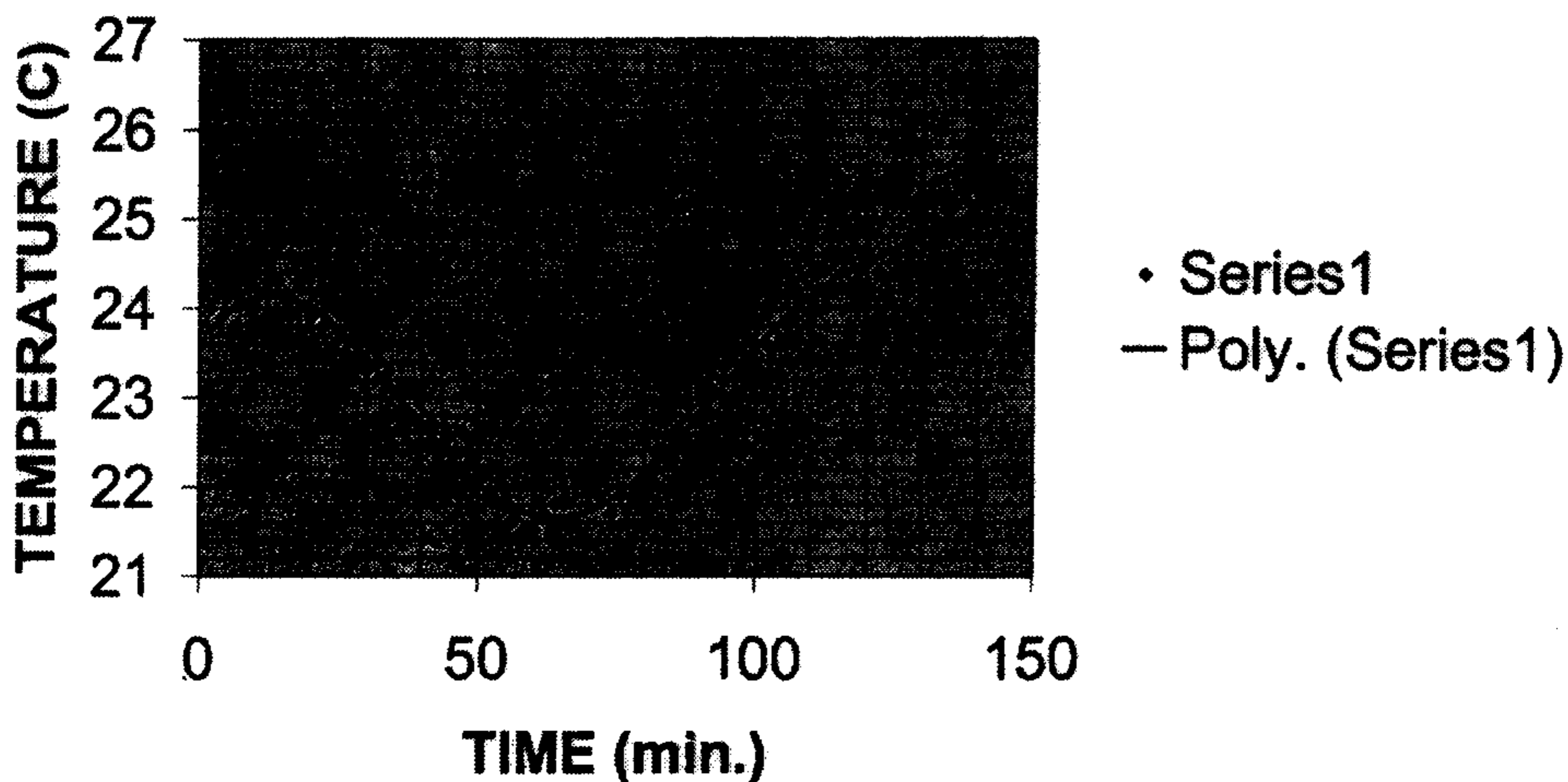


Fig. 2 Temperature changes in time (UTC).