



International Solar Eclipse Conference

A crossroad on physics and eclipses of the sun

Poster

Ralph B. Chou, Associate Professor, University of Waterloo School of Optometry, Canada

The Technical Specification for Solar Filter Materials

A technical specification for solar filters was prepared in advance of the total solar eclipse of 11 August 1999 and was used by several European agencies to determine the acceptability of solar eclipse viewers sold in several European nations. In response to concerns over the possibility of defective coatings in aluminized polyester filter materials, the technical specification was revised in 2000. The revised document and transmittance data for various solar filter materials are presented.

Poster

Nick Quin, England

Automatic Eclipse Photography

This paper describes a computerised photographic system used to automatically image the Total Solar Eclipse of 1999. The system used Canon T-70 cameras, with simple modifications to allow a Psion 3a 'Palmtop computer' to control both the speed and firing of the shutters. Details of the camera modifications, interface, and software, together with resultant images of the eclipse are presented.

Poster

Alfonso Lopez Borgonoz, Spain

SCIENCE AT THE VISIGOTHIC COURT. KING SISEBUTE AND HIS LITTLE TREATISE ABOUT ECLIPSES

Isidore of Seville was also keen on writing about nature and its phenomenons and thus he wrote a treatise in prose titled *De rerum natura* ("About Nature"), in Latin, at the beginning of the VII century, on request of King Sisebute, who reigned in the visigothic Hispania between the years 612 and 621 A.D. But what we are interested in today is not so much the study of the astronomical concepts of Isidore, but the epistle/treatise (the *Epistula metrica ad Isidorum de libro rotarum* -Samsó, 1992: 27 y 28- o *Epistula Sisebuti*) that, in verse and also in Latin, the very king Sisebute answered to Saint Isidore, after he received the book of which he had asked the editing. In this letter the monarch tried to give a rational and precise explanation, without giving in to superstition or to histories of witches, of lunar eclipses, in the first place, and of solar eclipses. Since then, the book of Isidore and the letter of Sisebute were known as a whole.

Poster

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Anomalous Time Variation of Infrared Flux During The 1999 Solar Eclipse

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An experiment was performed at the Roseland Community Observatory, Cornwall during the 11 August 1999 total solar eclipse. The main purpose of the experiment was to search for strong infrared coronal lines with a view to identifying candidates for subsequent magnetic field measurements. The experiment did not succeed in this aim due to the cloudy conditions pertaining at the time of the eclipse.

An incidental product of the experiment was the measurement of infrared flux as a function of time during the eclipse. These measurements produced the totally unexpected result that the infrared flux fell precipitously 6.5 minutes before second contact and rose just as suddenly 6.5 minutes after third contact. There were intensity plateaux immediately before the sudden intensity fall and immediately after the subsequent sudden intensity rise.

Poster

Magda Stavinchi, Romania

THE LAST ECLIPSE OF THE MILLENIUM HAD ITS MAXIMUM IN ROMANIA

On 11 August 2000 a year was elapsed since the last total solar eclipse of this century, maybe the most mediatized one until now.

Its maximum was in Romania. Here were:

- the maximum duration: 2 min 23 s (at Ramnicu Valcea),
- the maximum height of the Sun (590),
- the maximum coverage (103 %),
- the greatest width of the totality band (112 km),
- the highest mountains on which the eclipse was observed (Parang and Retezat).

Bucharest was the only European Capital situated exactly on the central line of the totality band. Moreover, the only professional astronomical observatory lying on this line was the Bucharest Observatory of the Astronomical Institute of the Romanian Academy.