INTRODUCTION

Multicolor photometry of stars is one of the principal tools which allows astronomers to obtain information about their physical properties. Tens of photometric systems have been proposed during the last two or three decades and hundreds of thousands of stars have been measured. Many methods have been developed for the photometric classification of stars and they have been applied successfully for the investigation of stellar populations in our Galaxy and other galaxies.

However, stellar photometry is not always used in the optimum way and this leads to a waste of valuable observing time. In most of the photometric systems the same bright stars are being measured again and again. At the same time many important stars remain unobserved. In many cases, observational data of high accuracy are being spoiled due to insufficient observation of standards or to improper reductions and transformations. Many problems arise with the transformation of CCD photometric data to standard systems. Also there are difficulties with the selection of filters and with the control of color sensitivity and linearity of the photometric equipment.

For a successful application of a photometric system we need its calibration in spectral classes, temperatures, absolute magnitudes, surface gravities, metallicities, etc. For this we need standard stars with exact values of these quantities and/or synthetic spectra of the realistic stellar models. For this, a close interaction is necessary between stellar photometry from one side and spectral classification and spectrophotometry from the other side.

These and other related questions have been discussed in the conference "Photometric Systems and Standard Stars" which took place on August 14-16, 1995 at the Moletai Astronomical Observatory in Lithuania, about 70 km north of Vilnius. Lithuanian astronomers have been engaged, for many years, in stellar photo-

metry and the development of methods of photometric classification of stars. The Vilnius seven-color photometric system is one of the five systems with the largest number of stars measured. The Moletai Observatory belongs to the Institute of Theoretical Physics and Astronomy in Vilnius and it serves as a national center for astronomical observations and for education of students of the Lithuanian universities. The Observatory possesses a 165 cm reflecting telescope, the largest in the Baltic area. The Observatory is situated in a beautiful area of Eastern Lithuania with forests, hills and lakes. Most of the photometric observations are being done with the 1-meter reflector of ITPA operating at the Maidanak Mountain Observatory in Uzbekistan.

The conference was organized by the Institute of Theoretical Physics and Astronomy, Vilnius, Lithuania, Astronomical Observatory of the Vilnius University and the Institute for Space Observations, Schenectady, New York. The conference was sponsored by the Institute of Theoretical Physics and Astronomy, the Institute for Space Observations and the Open Society Fund – Lithuania. The members of the Scientific Organizing Committee were: D. L. Crawford (USA), R. F. Garrison (Canada), B. Hauck (Switzerland), I. M. Kopylov (Russia), A. G. Davis Philip (USA), C. Sterken (Belgium), V. Straižys (Lithuania), A. T. Young (USA).

About 40 astronomers participated in the conference. More than 50 papers (invited, oral and poster) were presented. The Proceedings of the conference are published in Baltic Astronomy Vol. 5 Nos. 2 and 3 (1996). The papers are placed in alphabetical order according to the name of the first author. Late papers are placed at the end of the Proceedings.

V. Straižys *A. G. Davis Philip*