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EUV and X-Ray Optics: Synergy between Laboratory and Space II

**René Hudec
Ladislav Pina**
Editors

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Introduction

This volume includes the papers presented at the SPIE Europe conference on EUV and X-Ray Optics: Synergy between Laboratory and Space, held in Prague during the SPIE Europe congress in April 2011.

The topic of the conference reflects the success of analogous SPIE conference held in Prague in April 2009 and developments in the Czech Republic over last several decades, and also the growing involvement of European laboratories, Institutes, and companies in both laboratory as well as astronomical x-ray optics.

The development of astronomical imaging grazing incidence x-ray optics started in Czechoslovakia 41 years ago and hence has a long tradition. Later on, applications for laboratory started. The first Czech x-ray grazing incidence mirrors were manufactured by electroforming replication technology: based on collaboration with gramophone industry from where the galvanoplastics technology was adopted. Now, Czech institutes and companies still continue to participate in various projects with imaging x-ray optics, from laboratory to astronomical- and space-based, with emphasis on design and development of innovative designs and technologies, as well as cost effective solutions.

The motto of the conference was: synergy between laboratory and space in the field of x-ray optics.

This is, we believe, especially important now, as the future space x-ray astronomy missions such as ATHENA, in consideration by European Space Agency (ESA), require development of completely novel technologies and achieving fine angular resolution; similar requirements are also in the field of synchrotron and laboratory x-ray optics. It is obvious that some efforts can be shared among the two x-ray optics communities.

The conference was held about 2.5 years after Czech Republic became a full member of European Space Agency. This means new conditions for Czech Institutes participating in design and development of space x-ray optics.

The response to this conference was large, and we have got numerous contributions (oral and posters) and over 80 participants from Europe, United States, Russia, and other countries. Out of the 29 expected presentations, 25 manuscripts were published: 21 oral and 4 posters.

We thank all who contributed to this fruitful conference.

**René Hudec
Ladislav Píla**