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X-ray optics: how and what is to be seen (Scientific session of the Physical Sciences Division of the Russian Academy of Sciences, 22 May 2019)

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A scientific session of the Physical Sciences Division of the Russian Academy of Sciences (RAS), "X-ray optics: how and what is to be seen," was held in the Conference Hall of the P N Lebedev Physical Institute, RAS, on 22 May 2019.

The following reports were put on the session's agenda:

(1) **Snigirev A A** (Institute for Physics of Microstructures, RAS, Nizhny Novgorod) "Refractive X-ray optics: status, problems, and prospects";

(2) Chkhalo N I, Pestov A E, Polkovnikov V N, Salashchenko N N, Toropov M N (Institute for Physics of Microstructures, RAS, Nizhny Novgorod) "Diffraction limited X-ray optics: technology, metrology, applications"; (3) Polkovnikov V N, Salashchenko N N, Chkhalo N I (Institute for Physics of Microstructures, RAS, Nizhny Novgorod) "Berylliumbased multilayer X-ray optics";

(4) **Asadchikov V E** (Institute for Physics of Microstructures, RAS, Nizhny Novgorod) "Methods for improving the resolution and sensitivity in microtomography with the use of X-ray optical elements";

(5) Pavlinskii M N, Lutovinov A A, Tkachenko A Yu, Grigorovich S V (Institute for Physics of Microstructures, RAS, Nizhny Novgorod) "Oblique incidence optics and their application in the Spektr-RG orbital astrophysical observatory project".

Papers based on reports 2 and 3 are published below.

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