## **Preface**

We would like to present the annual activity report of the Institute for Solid State Physics (ISSP) for the academic year 2022. ISSP was established in 1957 as a joint usage/research institute affiliated with the University of Tokyo. In every era, we strive to lead the frontiers of condensed matter physics and materials science and contribute to the development of science and technology from a basic research perspective. In this report, we present a selection of research outcomes produced by ISSP members and other researchers from our community who participated in joint research programs.



The first section of the report includes 32 research highlights from ISSP groups, and the second section contains 16 highlights from joint research conducted by outside researchers with the assistance of ISSP members using the joint-use program. The third section details the development of the following facilities: Supercomputer Center, Neutron Science Laboratory, International MegaGauss Science Laboratory, Center of Computational Materials Science, Laser and Synchrotron Research Center, and Synchrotron Radiation Laboratory. The fourth section provides a summary of seven conferences/workshops held by ISSP in 2022. The publication and joint-use research topics lists conclude the document.

These activities demonstrate ISSP's position as the global center of excellence in condensed matter physics and materials science and we appreciate the ongoing support and cooperation of the community to continue our activities.

July 2023 HIROI Zenji Director of the Institute for Solid State Physics The University of Tokyo