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Ultrafast Phenomena XIX

Proceedings of the 19th International Conference, Okinawa Convention Center, Okinawa, Japan, July 7–11, 2014

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Preface

This volume is a compilation of research papers presented at the Nineteenth International Conference on Ultrafast Phenomena held at the Okinawa Convention Center, Okinawa, from July 7 to 11, 2014. The Ultrafast Phenomena conferences are held every two years and are the premier international forum for discussion of the latest and most important results in ultrafast science. These meetings bring together researchers from a variety of research fields in laser science and engineering to deliberate the latest advances in ultrafast optics and their applications. The conferences and associated published proceedings effectively disseminate the most recent scientific advances using ultrashort coherent light pulses. More than 327 papers were presented at *Ultrafast Phenomena XIX*.

Significant progress in attosecond pulses and high-order harmonic generation and their applications were reported. The response of atoms and molecules to intense ultrashort-pulsed laser pulses was discussed. Interfacial phenomena, photovoltaic, and light-harvesting systems were popular topics. Advances in time-resolved electron and x-ray diffraction and spectroscopy were presented, providing detailed information on atomic and electronic dynamics in molecular systems and solids. New light sources in THz and x-ray regions were described, opening new research frontiers of ultrafast phenomena. These examples are but a small subset of the research summaries gathered in this volume, which provides a valuable synopsis of the recent advances and impact of ultrafast technology in illuminating fundamental processes being investigated in physics, chemistry, and biology.

There were more than 370 attendees at the meeting, and among them more than 100 were graduate students. The presence of the young attendees energized the discussion during the conference, and the discussion was further enhanced by the beautiful ocean side setting in Okinawa. This year, unpredictably, the sessions scheduled to be held on Tuesday were postponed by the typhoon Neoguri, but thanks to the cooperation of all the attendees, all the scheduled sessions and events were rearranged and went through smoothly.

Many people, organizations, and sponsor companies made invaluable contributions to the success of the conference. The international program committee reviewed over 400 submissions, and organized the scientific program. The conference was

co-organized by Japan Intense Light Field Science Society, Center for Ultrafast Intense Laser Science, the University of Tokyo. The technical program was supported by the Optical Society of America, and the conference was supported by the European Physical Society and Innovative Center for Coherent Photon Technology, the University of Tokyo.

We are particularly grateful to Ms. Chie Sakuta and Ms. Ayane Maezawa for coordinating the submissions of the proceedings manuscripts and for their help in compiling them in the form of this book.

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Munich	Regina de Vivie-Riedle

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Tokyo	Makoto Kuwata-Gonokami
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