

Preface

The 29th International Conference on Photonic, Electronic and Atomic Collisions (XXIX ICPEAC) was held at the Palacio de Congresos “El Greco”, Toledo, Spain, on 22–28 July, 2015, and was organized by the Universidad Autónoma de Madrid (UAM) and the Consejo Superior de Investigaciones Científicas (CSIC). ICPEAC is held biannually and is one of the most important international conferences on atomic and molecular physics. The topic of the conference covers the recent progresses in photonic, electronic, and atomic collisions with matter. With a history back to 1958, ICPEAC came to Spain in 2015 for the very first time. UAM and CSIC had been preparing the conference for six years, ever since the ICPEAC International General Committee made the decision to hold the XXIX ICPEAC in Toledo.

The conference gathered 670 participants from 52 countries and attracted 854 contributed papers for presentation in poster sessions. Among the latter, 754 are presented in issues 2-12 of this volume of the Journal of Physics Conference Series. In addition, five plenary lectures, including the opening one by the Nobel laureate Prof. Ahmed H. Zewail and the lectures by Prof. Maciej Lewenstein, Prof. Paul Scheier, Prof. Philip H. Bucksbaum, and Prof. Stephen J. Buckman, 62 progress reports and 26 special reports were presented following the decision of the ICPEAC International General Committee. Detailed write-ups of most of the latter are presented in issue 1 of this volume, constituting a comprehensive tangible record of the meeting.

On the occasion of the International Year of Light (IYL2015) and with the support of the Fundación Española para la Ciencia y la Tecnología (FECYT), the program was completed with two public lectures delivered by the Nobel laureate Prof. Serge Haroche and the Príncipe de Asturias laureate Prof. Pedro M. Echenique on, respectively, “Fifty years of laser revolutions in physics” and “The sublime usefulness of useless science”. Also a popularization initiative was held in parallel to the conference, consisting of a poster exhibition for the general public and an International Science Camp for children. Furthermore, before the conference, four distinguished scientists: Prof. Thomas F. Gallagher, Prof. Jan Michael Rost, Prof. Joseph H. Macek, and Prof. Reinhard Dörner presented tutorial lectures.

During the conference, the 2015 IUPAP Young Scientist Prize was awarded to Dr. Gretchen K. Campbell from the University of Maryland. The Sheldon Datz Prize for an Outstanding Young Scientist Attending ICPEAC was awarded to Dr. Jayanta K. Saha from the Indian Association for the Cultivation of Science.

The Local Organizing Committee would like to express its gratitude to the Fundación Española para la Ciencia y la Tecnología (FECYT), the International Union for Pure and Applied Physics (IUPAP), all the conference sponsors for financial support, and, with particular emphasis, to the group of volunteers from UAM and CSIC for their hard and excellent work.

Finally, the Local Organizing Committee would like to thank all participants and authors of the proceedings for their support and contributions to the conference.



The editors,

Cristina Díaz, Universidad Autónoma de Madrid

Ismanuel Rabadán, Universidad Autónoma de Madrid

Gustavo García, Consejo Superior de Investigaciones Científicas

Luis Méndez, Universidad Autónoma de Madrid

Fernando Martín, Universidad Autónoma de Madrid