

■ Invited speaker

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S&T frontiers at ELI-ALPS and partner laboratories

Abstract

The Extreme Light Infrastructure (ELI) is one of the RIs of the European Strategy Forum for Research Infrastructures (ESFRI) roadmap. ELI hosts high peak power lasers and laser driven radiation and particle secondary sources, providing access to international users globally. It is distributed in three countries, the Czech Republic, Hungary and Romania. The Hungarian pillar, ELI-ALPS, offers high repetition rate, high peak power, short pulse sources and advanced user end-stations, with attosecond science being at the focus of its research activities.

In my presentation I will report on the status of ELI-ALPS, highlighting scientific accomplishment, achieved by internal and external users of the RI. Additionally I will present ELI-ALPS relevant results in the research areas of multi-XUV-photon processes and strong-XUV-field effects that have been recently obtained at the attosecond S&T lab of FORTH-IESL.

About the Author

Dimitris Charalambidis is Professor Emeritus of the Physics Department of the University of Crete, head of the attosecond S&T laboratory of FORTH-IESL in Heraklion, Crete and Chief Scientific Advisor of ELI-ALPS, Szeged, Hungary. He studied Physics at the University of Athens and did his doctoral dissertation at the Albert-Ludwigs University of Freiburg, Germany. Since 1987 he has been working at the University of Crete and at FORTH. His research interests focus on the fields of atomic and molecular physics, atto science, atoms and molecules in strong electromagnetic fields, coherent ultraviolet and X-ray sources, ultra-fast phenomena, and laser based diagnostic techniques. He has supervised more than 40 postgraduate/doctoral students and postdoctoral fellowships, several of whom are currently members of international and national universities and research institutes. He has organized and co-organized more than 30 international scientific events and coordinated more than 30 EU and nationally funded research projects. He has been a member of many international and national scientific policy making bodies. In addition, he has served on a number of research/training evaluation and management committees. He was and is actively involved in the preparation and implementation of Extreme Light Infrastructure (ELI), one of the ESFRI roadmap RIs.