



PRESS-RELEASE

Max-Planck-Institute of Quantum Optics
And
The Laboratory for Attosecond Physics



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The International Year of Light: opening ceremony in Copenhagen draws prominent scientists from abroad.

It's official: 2015 is the International Year of Light (IYL). The initiative introduced by the United Nations (UN) aims to bring more awareness to light and its importance in our lives. To achieve the recognition of IYL, the cause requires the fulfilling of "the missions of UNESCO to the **building of peace**, the **alleviation of poverty**, to **sustainable development** and **intercultural dialogue through education, science, culture, and communication**".

Just last week a plethora of optical scientists from a handful of countries, including Denmark, Germany, Sweden, China, the USA, New Zealand, and France gathered in Lyngby, just outside of Copenhagen, for the Danish Physical Society's IYL opening ceremony and annual meeting at the Technical University of Denmark. The conference was a testament to how the IYL can fulfill the United Nations' missions and affect so many key areas of our lives.



Comprised of talks about optics and photonics, and the ways that these technologies are essential for our lives, and our future, each physicist (pictured) presented their research and current work on their respective sub-fields.

Opening the event was Dr. John Dudley, President of the European Physical Society and a key architect in securing 2015 as the International Year of light with the UN. His presentation highlighted the far-reaching applications of light in life, culture, healthcare, communication, innovation, etc., emphasizing the importance of development and education in some of the world's poorest nations, thanks to innovations in light use and technology.

Along with the Attosecond Laboratory's Professor Krausz giving a talk on exploring the microcosm and electron movements, speakers also included Sune Svanberg, Senior Professor at Lund University, discussing his work in China where a new photonics center is being built. The center is focusing on laser research uses for environmental monitoring and food safety, as well 'realistic' applications to improve malaria testing and remote censoring, for example in water quality tests. Also present were Nobel laureate Professor Wolfgang Ketterle, presenting his research on atom cooling in order to produce new materials not inherently present in nature, and Professor Chris Barty of the Lawrence Livermore National Laboratory. Barty's presentation on the National Ignition Facility's laser program (NIF) focused mostly on laser fusion technology. Highlighting the environment as a key application in the mission to achieve cleaner energy, Barty demonstrated the potential improvements in energy use thanks to fusion power plants, which would produce no greenhouse gas or noxious emissions and could require only a tiny fraction of the energy input required by coal, gas, or nuclear plants.

The conference featured not only talks from scientists, but also poster presentations from various PhD students at the university (and their teams abroad) on related research, offering them an opportunity to discuss with their peers and the international guests, promoting education, creativity in science, and, of course, further research. With the IYL now in full swing, we can look forward to more unique and interesting events in Germany and overseas throughout 2015.

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