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PRESS RELEASE

ATTOSECOND SYMPOSIUM AND MILESTONE INAUGURATION WITH NOBEL LAUREATE RESEARCHERS AT ELI ALPS

It is a tradition of our institute to honour outstanding achievements in laser physics. In 2023, Pierre Agostini, Ferenc Krausz and Anne L'Huillier were awarded the Nobel Prize in Physics for their experimental methods that generate attosecond light pulses. On 14 June 2024, we held an attosecond symposium with Anne L'Huillier, and in the presence of Ferenc Krausz and Anne L'Huillier we inaugurated a new milestone in front of our institute to commemorate the accomplishments of last year's winners of the Nobel Prize in Physics.

At the invitation of ELI ALPS, Nobel Laureate physicist Anne L'Huillier, Professor of Atomic Physics at the University of Lund, came to Szeged to give a lecture as the guest of honour at our Attosecond Symposium. In her talk titled *The Route to Attosecond Pulses* the FrenchSwedish professor outlined the history of the development of the field, her research results and highlighted the involvement of the University of Lund in the development of our Sylos GHHG laser in the past decade. She also emphasized that the collaboration with the Szeged based research centre forms a significant part of her professional life and it stands close to her heart.

In the afternoon, we inaugurated a new milestone in honour of the 2023 Nobel Prize in Physics, which was granted to Pierre Agostini, Ferenc Krausz and Anne L'Huillier for experimental methods that generate attosecond pulses of light for the study of electron dynamics in matter. Attosecond physics is one of the focus areas of ELI ALPS' research profile. For us, the fact that the leading researchers in this field were awarded the Nobel Prize, and two of them, Ferenc Krausz and Anne L'Huillier, played a major role in the establishment of ELI ALPS, sends the message that attosecond science is a major discovery for mankind. On 14 June, we commemorated the achievements of all three Nobel laureates on the science history timeline of our research institute. The milestone inauguration ceremony was attended by Ferenc Krausz and Anne L'Huillier.

“On behalf of the researchers and staff of ELI ALPS, we extend our heartfelt congratulations on your outstanding scientific achievements recognized with the Nobel Prize! It is a great honour for us to have you celebrate with us the inauguration of one of our research centre's milestones,” Katalin Varjú, Science Director of ELI ALPS said in salutation to Ferenc Krausz and Anne L'Huillier.

To mark the special occasion, we presented each researcher with a unique gift, a Gömböc, which is the first known convex, homogeneous object to have just one stable and one unstable equilibrium points. The existence of the Gömböc was conjectured in 1995, but the



proof of existence and experimental verification came more than a decade later, just like in the case of attosecond pulses.

These Gömböcs have unique serial numbers. The one presented to Anne L'Huillier carries the number 170, which pays homage to the first on target attosecond pulse characterization, which was achieved by the Lund group in 2004.

The Gömböc presented to Ferenc Krausz carries the number 80. The Hungarian-born researcher generated 80 attosecond pulses in 2008. It was a feat which was recognized even with a Guinness World Records certificate.

For further information please contact:

Katalin Marton

Head of the HR and Communications Department

E-mail: katalin.marton@eli-alps.hu

Tel.: +36 70 932-2477

