

RESOLUTION OF RECOGNITION FOR DR. PIERRE AGOSTINI

Synopsis: The Board of Trustees of The Ohio State University wishes to recognize and congratulate Dr. Pierre Agostini, professor emeritus of physics, for winning the 2023 Nobel Prize in Physics.

Born in Tunisia, Pierre Agostini received multiple degrees from Aix-Marseille University in Marseille, France, including his doctorate in physics. He worked as a researcher at the French Alternative Energies and Atomic Energy Commission (CEA) research site in Saclay before joining The Ohio State University in 2005 as a Professor of Physics. Upon his retirement in 2018, the Board of Trustees conferred him emeritus status in recognition of his distinguished academic career at the institution.

Agostini continues to engage in research activities and mentorship to this day. Working in collaboration with Hagenlocker Chair of Physics Louis DiMauro for over 30 years, the Agostini-DiMauro Atomic Physics Research Group studies ultra-fast and strong-field atomic physics, both theoretically and experimentally. Their research in particular uses ultra-fast laser pulses to study the movement of subatomic particles.

In October 2023, the Royal Swedish Academy of Sciences awarded Agostini (alongside Ferenc Krausz from the Max Planck Institute of Quantum Optics in Germany and Anne L'Huillier from Lund University in Sweden) with the 2023 Nobel Prize in Physics “for experimental methods that generate attosecond pulses of light for the study of electron dynamics in matter.”

Because electrons can move at approximately 2,000 miles per second, it is exceedingly difficult to capture their movement. Agostini and his fellow Nobel laureates, however, pioneered the creation of light pulses lasting merely attoseconds (one quintillionth of a second) to track electron movement.

In recognizing this work, the Nobel Prize committee noted the limitless possibilities that this research can unlock, citing that Agostini and the other awardees “have given humanity new tools for exploring the world of electrons inside atoms and molecules.” The committee further identified the broad potential that such research may have across a wide variety of different disciplines, including in engineering, where tracking the movement of electrons could allow for highly increased efficiency in the operations of electronics, and in medicine, where the use of attosecond pulses could have significant diagnostic applications.

Agostini’s groundbreaking scientific achievements have meaningfully advanced both science and society more broadly. Even beyond these impressive advancements, though, Agostini is widely regarded as an exemplary colleague, a caring and humble man who cares deeply about science, education, and promoting and supporting others.

On behalf of the entire university community, the Board of Trustees congratulates Dr. Pierre Agostini, professor emeritus of physics, for winning the 2023 Nobel Prize in Physics, and expresses its deep admiration for his decades of innovative research and significant contributions to the university community. It is directed that this resolution shall be inscribed upon the minutes of the Board of Trustees, and a copy will be tendered to Agostini as an expression of the Board’s heartfelt appreciation of his accomplishments both presently and throughout his career.