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ICTP-SAIFR/IFT-UNESP PHYSICS DISCUSSIONS

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DONNA STRICKLAND (U. WATERLOO, CANADA)

FROM NONLINEAR OPTICS TO HIGH-INTENSITY LASER PHYSICS

The laser increased the intensity of light that can be generated by orders of magnitude and thus brought about nonlinear optical interactions with matter. Chirped pulse amplification, also known as CPA, changed the intensity level by a few more orders of magnitude and helped usher in a new type of laser-matter interaction that is referred to as high-intensity laser physics. In this talk, Dr. Strickland discuss the differences between nonlinear optics and high-intensity laser physics. The development of CPA and why short, intense laser pulses can cut transparent material will also be included.

DONNA STRICKLAND is a professor in the Department of Physics and Astronomy at the University of Waterloo and is one of the recipients of the Nobel Prize in Physics 2018 for developing chirped pulse amplification with Gérard Mourou.

MORE INFORMATION: ictp-saifr.org/physicsdiscussions