

# In Brief: Development of a new chip for characterizing ultrafast optical pulses

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Boosting up microprocessors -the heart of modern computers- at the speed of light, reducing consumptions and costs, may now be a reality thanks to the development of a new high-performance chip, the results of which have been published in *Nature Photonics*.

Fruit of an international scientific team effort, this important step forward has been made by Alessia Pasquazi, a postdoctoral fellow with the team of professor Roberto Morandotti of the Energy, Materials and Telecommunications Centre at INRS. With this new chip, Dr. Pasquazi has ushered in a new era for the Internet, and paved the way for myriad applications in metrology and optical telecommunications.

The new device was created using SPIDER technology, renowned as an exceptional tool for characterizing pulses. It allows users to measure the intensity and phase of ultrafast [optical pulses](#) without requiring the use of unwieldy or expensive equipment.

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**More information:** The article was published in *Nature Photonics*: [www.nature.com/nphoton/journal ... photon.2011.199.html](http://www.nature.com/nphoton/journal.../photon.2011.199.html)

Provided by INRS

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