



NETLAS NEWSLETTER 5

This newsletter marks the recruitment of the third ESR to our ITN, on 1st July 2020.

PhD12: Sacha Grelet

Host: NKT Photonics

Secondment: University of Kent, Applied Optics Group (AOG)

PhD Project: Time Stretched Pulse Supercontinuum (SPSC) swept laser source



During the last years, the progress in All-Normal Dispersion (ANDi) fiber manufacturing lead to a new technique to generate low-noise supercontinuum sources. These broadband lasers can be used in Optical Coherent Tomography (OCT) systems to get high resolution and high sensitivity imaging.

Another technique called time-stretch allows overcoming one of the bottlenecks of OCT: the lack of high speed, high sensitivity detector and digitizers. In this project, we aim to build low noise, near-visible IR sources that combine the strength of the ANDi Supercontinuum and Time Stretch to improve the capabilities of OCT systems.

**Education:**

Sacha obtained his engineering degree from Telecom Saint Etienne (France) with a major in Photonics and minors in Computer Science and Image Processing. He spent his fifth year at the University of Laval (Québec, Canada) to specialize in laser science and nonlinear effects in fiber optics. To complete his education in this field, he did a six months internship at Alphanov (Bordeaux, France) on the design of stable passively mode-locked fiber laser.

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NETWORK EVENTS

Channel N PhD12 was created on the Netlas Team and continued the regular meetings supervision of Sacha Grelet. In fact, this has been used a few months before Sacha was practically recruited.

On 11 September 2020, Teams PH800 was created in Kent for teaching over the network. This will include files to be shared across the network by the ESRs attending the module PH800, Biomedical Optics, taught in Kent.

Hungry for news

From now on we invite all partners to communicate events and ideas to place in our newsletter

Please send any piece of news, on NETLAS activities or anything else happening that may be of interest to the NETLAS community, to Ramona Cernat: R.Cernat@kent.ac.uk and to Adrian Podoleanu: ap11@kent.ac.uk