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OPN's Optics in 2023

ICFO- UPV collaboration highlighted in the annual special edition

December 04, 2023

Each year, the December issue of Optics & Photonics News-the monthly magazine of Optica (formerly OSA)-highlights the most exciting optics research to emerge in the preceding 12 months.

This year the paper titled "Photonic snake states in two-dimensional frequency combs", a work published in **Nature Photonics** by a group of researchers led by ICFOian Carles Milian, now a Professor at the Institut Universitari de Matemàtica Pura i Aplicada, Universitat Politècnica de València, was picked to belong to the "Optics in 2023" special annual selection of the most relevant works published in the year worldwide. The team included also ICFOians Salim B. Ivars (former Master student at ICFO), and Yaroslav V. Kartashov (now Professor at the Russian Academy of Sciences), and Prof. Lluís Torner. In the featured paper, researchers provided an innovative framework for the understanding and control of the long known highly destructive snake instabilities. These instabilities form stationary nonlinear photonic snakes, which introduce a novel type of nonlinear waves and, most importantly, provide a generalization of the concept of optical frequency comb. Congratulations to all who collaborated on this high impact work!