



DEPARTAMENTO DE FÍSICA  
UNIVERSIDAD DE SANTIAGO DE CHILE

SEMINARIOS ONLINE 09.06.2021 | 15:30 horas

Prof. JOHN DUDLEY

CNRS Research Institute FEMTO-ST in Besancon, France

**“Unexpected connections in pure and applied research”**

There is currently intense international debate concerning optimal ways to manage interactions between fundamental and applied research. However, although there is sometimes a tendency to view this as a modern problem, the same issues have occurred frequently during the history of scientific development. This talk will review some particular examples from nonlinear science, discussing unappreciated aspects of research in nonlinear soliton physics, spanning the 19th century laying of the transatlantic cable, the Manhattan Project, the 2005 and 2009 Nobel Prizes in physics, the latest techniques in medical diagnostics and the detection of extra-solar planets. We will also see how these developments are leading to dramatic developments in nonlinear optics and fundamental advances in the understanding of nonlinear light - matter interactions, new approaches for ultrafast laser design, and leading to some surprising applications in other fields of physics. The talk will consider technical aspects of wave propagation and nonlinear photonics, but will be sprinkled with historical anecdotes and thus will be suitable for a general audience.

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### Enlace plataforma Zoom:

Topic: Seminario Física, Miércoles 09 junio, 15.30 horas

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