

**UNIVERSITAT POLITÈCNICA DE CATALUNYA**

*Laboratory of Photonics  
Electromagnetics and Photonics Engineering group  
Dept. of Signal Theory and Communications*

**OPTICAL SOLITONS IN QUADRATIC  
NONLINEAR MEDIA AND  
APPLICATIONS TO ALL-OPTICAL  
SWITCHING AND ROUTING DEVICES**

Autor: María Concepción Santos Blanco  
Director: Lluís Torner

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