

23-25/95
DANA Point, Ca

Submitted to Integrated
Photonics Research

Coherent Effects on Ultrashort Pulse Interaction in a Doped Fiber

A. V. Luchnikov

General Physics Institute, ul. Vavilova 38, Moscow 117942, Russian Federation

Fax: (095) 135 0270, E-mail: luchnik@kapella.gpi.msk.su

I. V. Mel'nikov

Optoelectronics Research Centre, University of Southampton, Hampshire SO17 1BJ, UK

Fax: +44 703 593139, E-mail: ivm@orc.soton.ac.uk

Abstract

We study numerically the interaction of adjacent solitons upon the condition of coherent amplification. After a critical length the interaction leads rather to soliton annihilation or fission than to their collision.

899.