

Optical spatial solitons and nonlinear guided waves: the legacy of Prof. George Stegeman and some recent developments

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Abstract

After a brief and incomplete summary of the professional career and achievements of Prof. George I. Stegeman, passed away last year, I will pinpoint a few of his scientific results on optical bistability and spatial optical solitons, linking them to some recent achievements in the area of liquid crystal photonics.

In particular, the extension of optical bistability and spontaneous symmetry breaking to nonlinear propagating beams in reorientational anisotropic media will be discussed with reference to nematicons, spatial optical solitons in nematic liquid crystals.