

- sider beams with a bounded variance, for which the corresponding spectrum $F(k)$ is not singular.
- [26] A. Szameit, F. Dreisow, M. Heinrich, T. Pertsch, S. Nolte, A. Tünnermann, E. Suran, F. Louradour, A. Barthélémy, and S. Longhi, *Appl. Phys. Lett.* **93**, 181109 (2008).
 - [27] A.E. Siegman, *Lasers* (University Science, Mill Valley, California, 1986).
 - [28] H.L. Haroutyunyan and G. Nienhuis, *Phys. Rev. A* **64**, 033424 (2001).
 - [29] H.J. Korsch and S. Mossmann, *Phys. Lett. A* **317**, 54 (2003).
 - [30] S. Mossmann, A. Schulze, D. Witthaut and H.J. Korsch, *J. Phys. A: Math. Gen.* **38** 3381 (2005).
 - [31] Analytical results can be also provided for a more general two-dimensional lattice model, in which nearest diagonal coupling terms are accounted for in the Hamiltonian (38) (see Ref.[30]). However, the resulting equations are very cumbersome, and this case will not be considered here.
 - [32] T. Pertsch, U. Peschel, F. Lederer, J. Burghoff, M. Will, S. Nolte, and A. Tünnermann, *Opt. Lett.* **29**, 468 (2004).
 - [33] D.H. Dunlap, V.M. Kenkre, *Phys. Rev. B* **34** (1986) 3625.