

Some nanotube-like systems and their discrete equations

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Abstract

We show that in a class of models describing electron states interacting with the deformations of a lattice the stationary states lead to equations which involve discrete laplacians. In a hexagonal case these equations correspond to 7-point and 4-point laplacians for which one can find a simple solution. This poses many interesting questions which could be of interest to the ‘discrete equations’ community.