Topological properties of quasicrystals and quasi periodic systems

Quasicrystalline order and topological features (e.g. quantum Hall effects, topological insulators, graphene) have been two topics thoroughly investigated in condensed matter physics during the last decades.

There is a recent renewal of these topics resulting from the interest aroused by the study of topological insulators on one hand and on the other hand, by the wider and recent possibilities to experimentally test these ideas. The new point being perhaps that while quasicrystalline and topological features were considered tangential notions at most, it has become increasingly clear, that they are intimately related.

The purpose of this minicolloquium is to bring people having a long involvement in these topics and who could present them in a broad perspective together with people who have been more recently involved and have proposed new ideas to understand the topological features of quasicrystalline systems in condensed matter physics, in cold atomic gases and in optics.