

Gap structure and topological indices on the Fibonacci quasicrystal.

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Abstract.

Introduction

1. The Fibonacci quasicrystal

1.1. The geometrical model

1.2. Electrons on the Fibonacci chain

Cite experiments: Eric.

2. The gap labelling theorems

2.1. Gap labelling of the infinite quasicrystal

2.2. Gap labelling of the approximants

2.3. Gap labelling in the strong modulation limit

3. Gap labels as topological indices

4. Permanent and transient gaps

5. Gap indices and gap widths