

BADLY SUPERCONDUCTING WIRES

Dan Shahar

*Depart. Condensed Matter Physics,
The Weizmann Institute of Science,
Rehovot, 76100, Israel*

We explore the properties of disordered superconducting wires approaching the one-dimensional limit. Our wires are made by evaporating indium-oxide on non-conducting inorganic nanotubes stretched across a gap. The deposited indium-oxide form a highly disordered amorphous superconductor. Under the application of a magnetic field the resistance of the wires exhibits reproducible periodic-oscillations, the like of which are usually associated with Superconducting Quantum Interference Devices (SQUIDs).