

Appunti di Fisica '24

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Sala Seminari, CNR-IPCF

Innovative 2D material sensors: A new era in medical and environmental technologies

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The rise of 2D materials has revolutionized sensor technology, offering cutting-edge solutions for both medical and environmental applications. These ultra-thin, highly sensitive sensors are transforming the way we monitor health and the environment, enabling real-time, precise measurements with minimal energy consumption. In the medical field, 2D material sensors provide breakthroughs in non-invasive diagnostics, wearable health monitoring, and personalized treatment, significantly enhancing patient outcomes. In environmental technologies, they offer unparalleled detection capabilities for pollutants, water quality, and air monitoring, contributing to more effective environmental protection and sustainability efforts. This presentation will examine the innovations behind 2D material sensors and the change that occurs when changing the size and thickness of 2D materials in terms of sensor's sensitivity.

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