

# A dream comes true: room-temperature superconductivity (?)

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In this seminar, I'll try to present an exciting scientific journey started in 1911 with the discovery of superconductivity in mercury at a temperature of  $\simeq 4$  K. Since then, the "dream" of a room-temperature superconductor haunted our (scientific) nights. Exists or not exists? And if it exists, how it's done?

After more than 100 years, in 2023, we are probably assisting to an epochal scientific and technological revolution: **the dream finally comes true (?)**.

All our questions could have definitive answers thanks to exceptional experimental, theoretical and computational efforts put in place in the last years.

However, the revolutions bring with them many controversial aspects and contradictions, and this scientific revolution is not an exception...