



## COLLOQUIA DI DOTTORATO, A.A. 2025/2026

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A101, Dipartimento di Fisica  
**Giovedì 22 gennaio 2026 ore 16:00**

# ***Drug Design on quantum computers***

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Drug design is often mentioned as one of the main future applications of quantum computers, but what does this entails? What are the real current computational challenges in drug discovery?

We know that quantum computers are expected to yield speed-ups for some quantum chemistry calculations, e.g. calculating electronic structure problems of strongly correlated quantum systems, which are impractical on classical machines.

But how are these calculations connected to practical applications in drug design?

In this talk we will explore this connection and discuss some recent contributions to bridge the gap between theoretical quantum advantage and practical applications.