

Searching on noisy graphs via continuous-time quantum walks

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IFISC Seminar Room

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Continuous-time quantum walks have received much attention in the recent past, especially because of their useful applications in several fields. One of them is the problem of quantum spatial search, in which an analog of Grover's search algorithm is run over a structured database, i.e. a graph. In this talk we overview the subject and we show how the presence of dynamical noise on the graph can affect the performance of the search, correlating the results to the graph topology. Finally, we discuss possible paths toward the implementation of continuous-time quantum spatial search, at present still missing.

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This seminar will be broadcasted live in:

<http://ifisc.uib-csic.es/live.php>

