

**Title:** Prime numbers and random walks in a square grid

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Seminario de Física Teórica. 2ª Planta. Edificio B. Física.

Lunes 12 de Septiembre, 10:00 h

**Abstract:**

In recent years, computer simulations have played a fundamental role in unveiling some of the most intriguing features of prime numbers. In this talk, we define an algorithm for a deterministic walk through a two-dimensional grid, which we refer to as a prime walk. The walk is constructed from a sequence of steps dictated by and dependent on the sequence of the last digits of the primes. Despite the apparent randomness of this generating sequence, the resulting structure—in both two and three dimensions—created by the algorithm presents remarkable properties and regularities in its pattern, which we proceed to analyze in detail.