



# Coloquio Queretano de Matemáticas

**23 de Junio @ 1pm**

**Covering convex bodies and the closest vector problem**

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Given a point  $p$  in and a norm on  $\mathbb{R}^d$ , the Closest Vector Problem is the task of finding a vector with integer coordinates closest to  $p$ . The problem is known to be hard. We discuss an algorithm that works with a certain family of norms and whose output is an integer point that is within a multiplicative factor of  $(1 + \varepsilon)$  from the optimal distance from  $p$ . We will present another, more recent algorithm by Arya, da Fonseca and Mount based on a polytopal approximation result. Joint work with Moritz Venzin.

**investigación**

**convexidad**

**matemáticas discretas**

**Evento híbrido, con transmisión en vivo**

presencial: Aula Teórica, IM-UNAM Juriquilla

virtual: Zoom ID: 979 443 2722      pass: DRvwX2

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