

# Can graph neural networks count substructures?

*Tuesday 15 December 2020 18:00 (30 minutes)*

The ability to detect and count certain substructures in graphs is important for solving many tasks on graph-structured data, especially in the contexts of computational chemistry and biology as well as social network analysis. In this talk we study the expressive power of popular graph neural networks (GNNs) via their ability to count attributed graph substructures, extending recent works that examine their power in graph isomorphism testing and function approximation. No previous knowledge on graph neural networks is required.

**Presenter:** Prof. VILLAR, Soledad (Johns Hopkins University)