

## CONFERENCIA

# **A twist on SLP algorithms for NLP and MINLP problems: an application to gas transmission networks**

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Lugar: **Aula A.2.2b – Facultade de Informática.**

## Resumen

In this talk we plan to present a modification of classic SLP algorithms for the resolution of NLP and MINLP problems, and does it with a clear application in mind: optimization of gas transmission networks. The SLP-NTR and 2-step SLP algorithms we introduce have been developed within the collaboration with a company of the gas industry and thoroughly tested with real problems in this field.

Here we present a comparison of their performance with that of classic SLP algorithms and state of the art solvers. Importantly, we provide some theoretical foundations for the potential applicability of these new algorithms to general NLP and MINLP problems.