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SEMINÁRIO DE INVESTIGAÇÃO OPERACIONAL

Dia 1 de Julho (sexta-feira), às 16H00, na sala 6.4.35

Mathematical Programming Models for Pipeline Scheduling

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Abstract:

Pipeline systems connecting oil fields to distribution centers play a key role in the oil supply chain. They are usually multiproduct system conveying a variety of oil derivatives such as heating oil, motor gasoline, jet fuel, and liquefied gas one after the other into the same pipeline. In recent years, scheduling problem related to the pipeline input and operations has receive growing attention, with most of them including a rigorous mathematical model and a common objective function. It consists of sequencing/sizing product batches inside the pipeline and timing batch removals at depots so as to meet product demands at minimum total operational costs. Operating costs usually include, pumping, backorder and finally transition costs between different products inside the pipeline. In this presentation we intent to have an overview on some previous works addressing the operational scheduling of pipeline networks. Of the pipeline networks, straight and tree-like structures are the most common used in the oil industry.

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