



Rodrigo Lira

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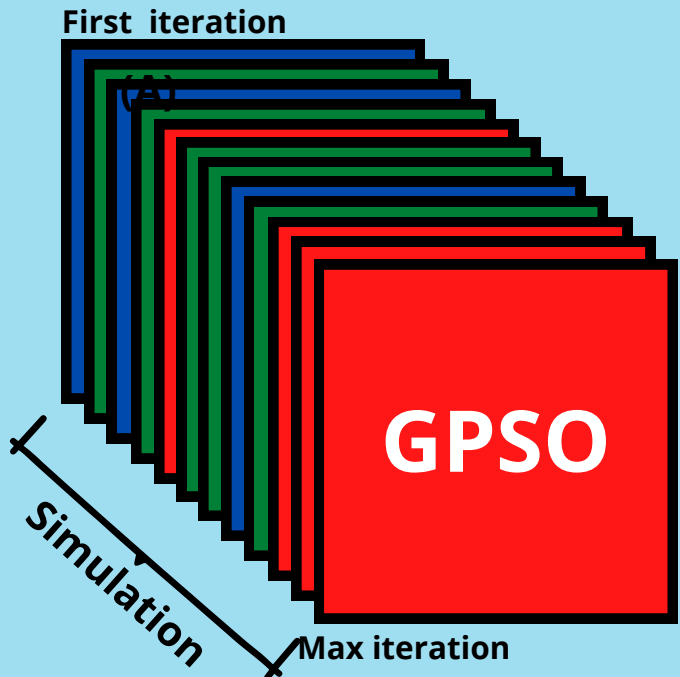


Pesquisa

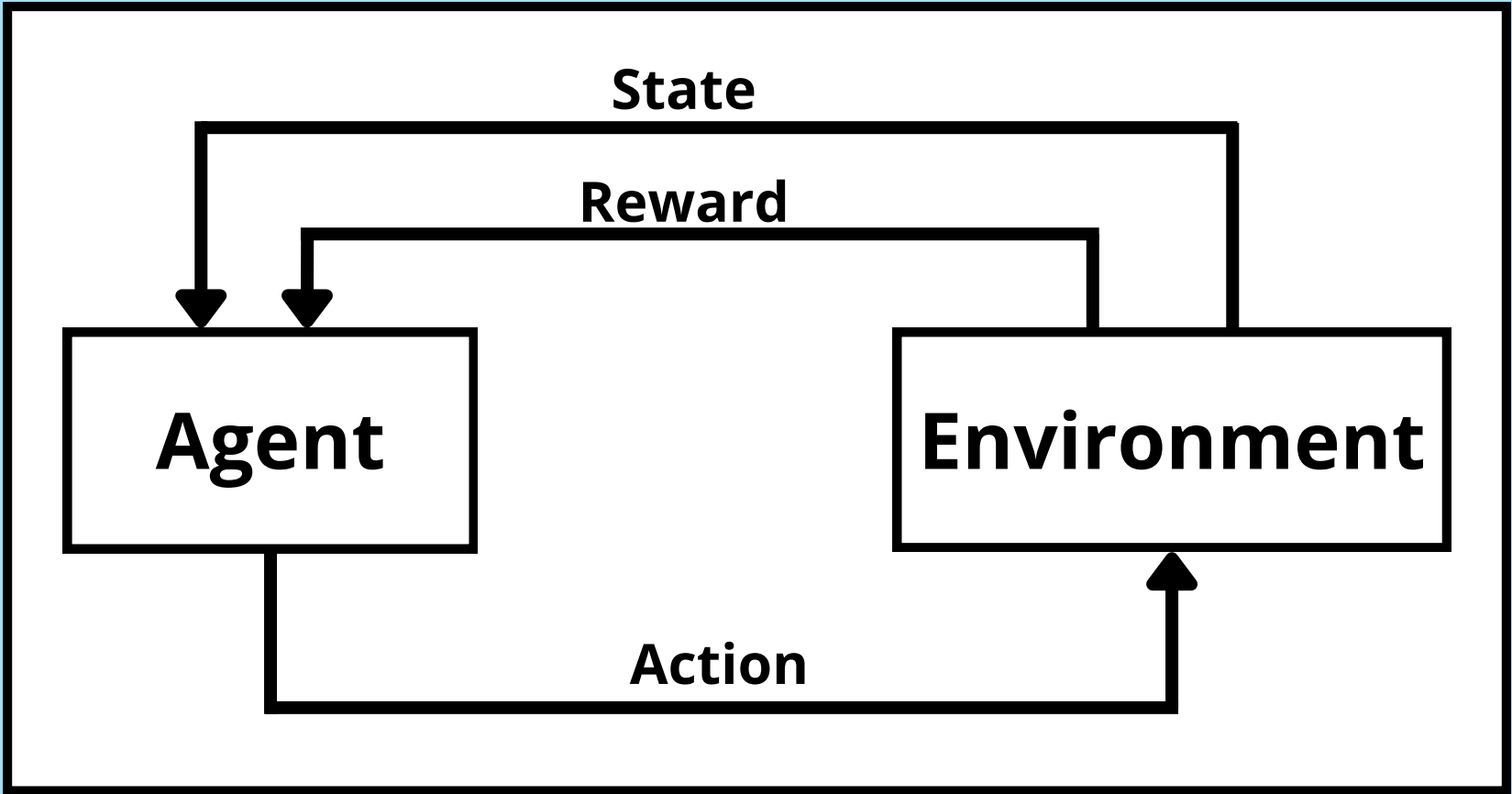
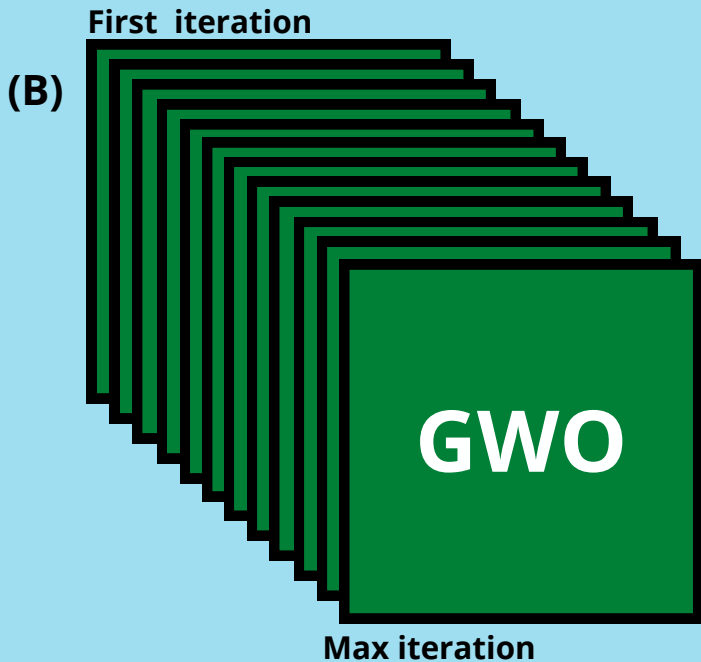


Inteligência de Enxames

RL-based metaheuristic

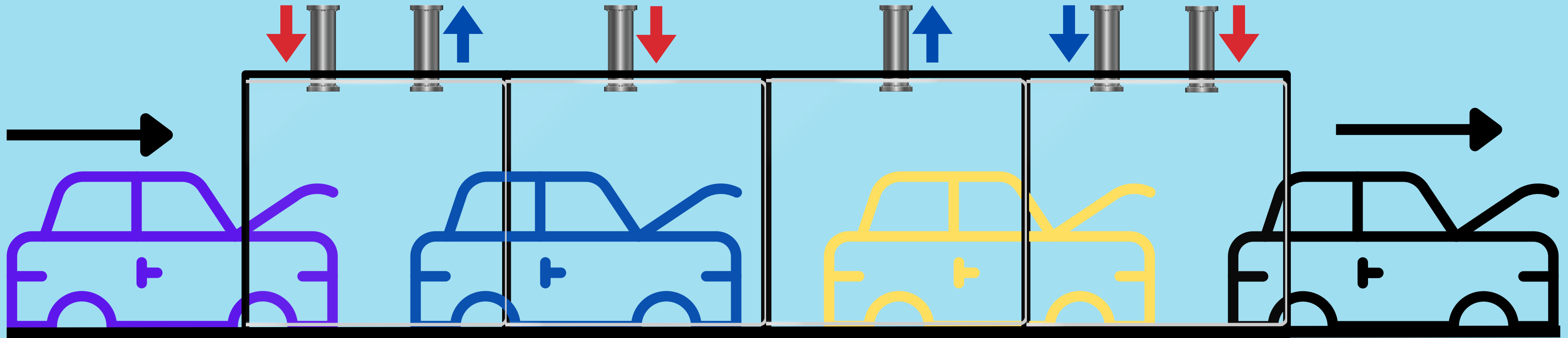


Standard metaheuristic



Case

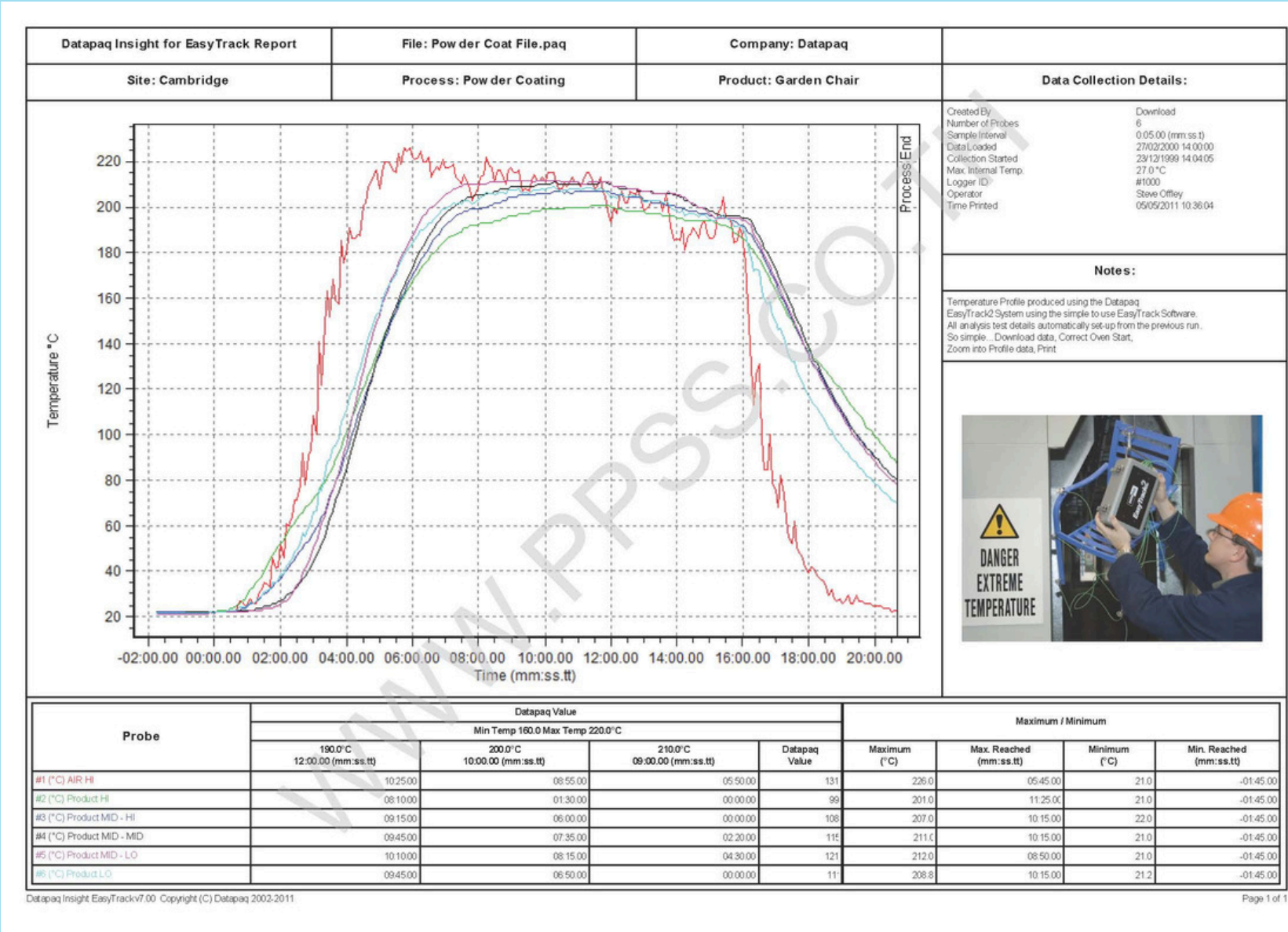
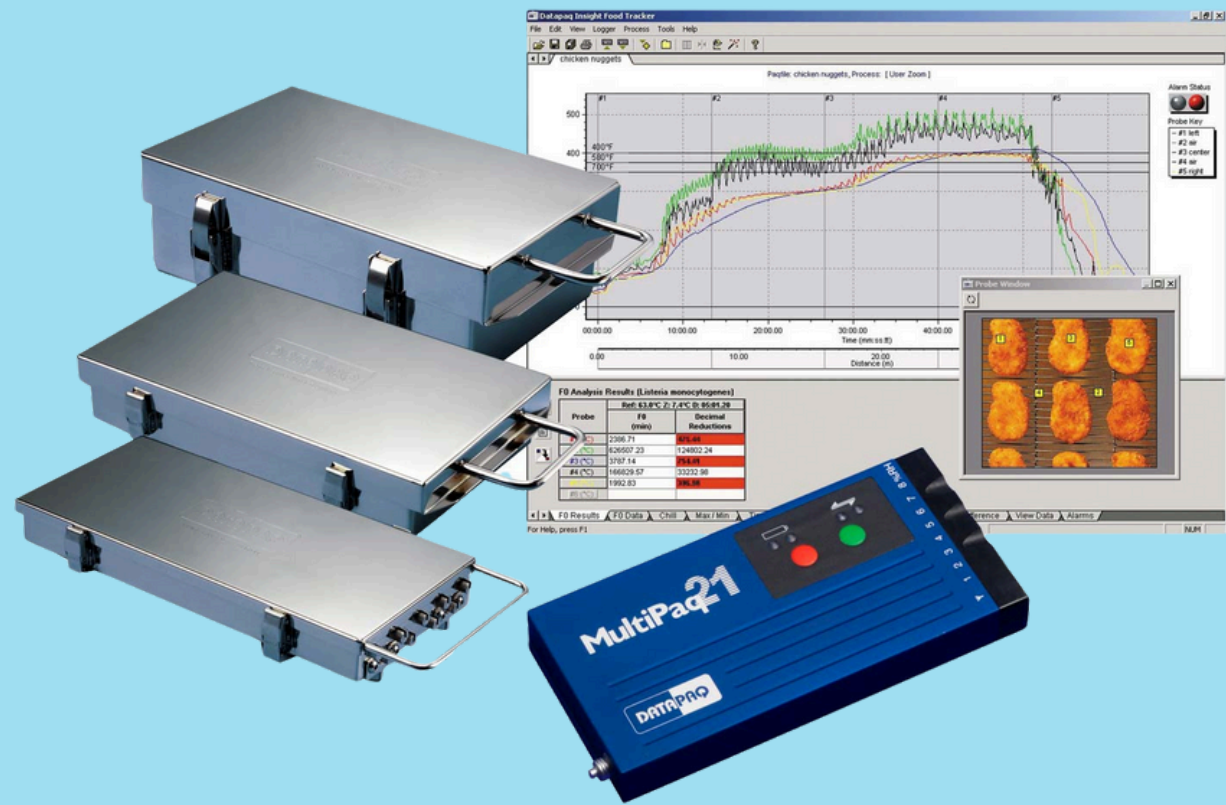
Cura da Tinta



Forno

Restrições de temperatura e tempo para garantir a cura (secagem) da tinta.

Como medir?



Datapaq

Desafio

Variáveis de operação do forno

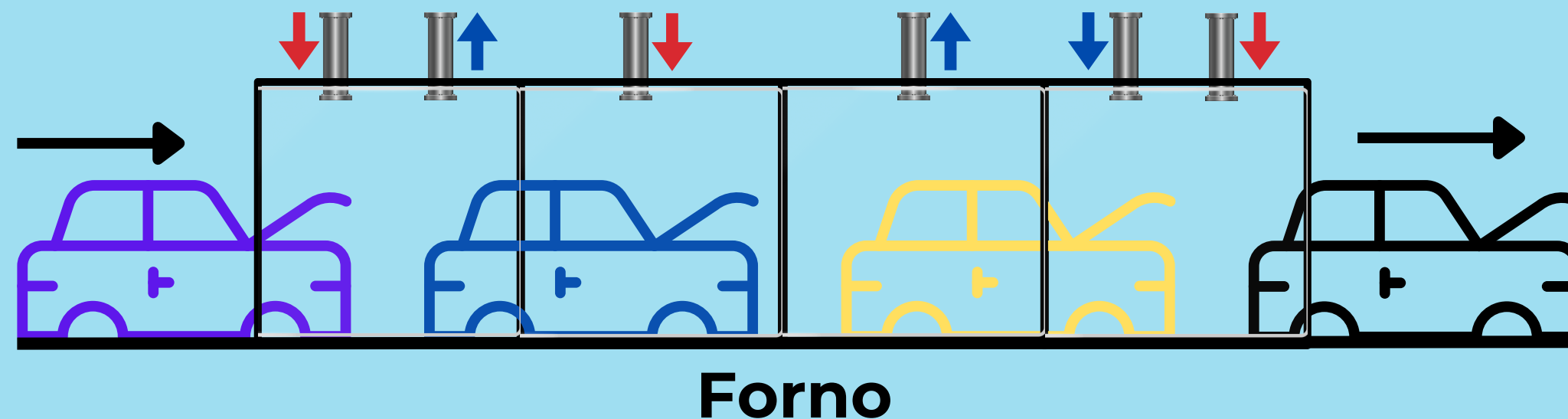
setpoint dos módulos do forno

velocidade da esteira

quantidade carros

temperatura da fonte de calor

...



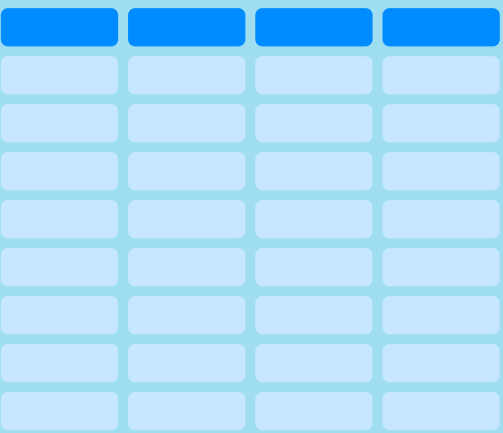
Como otimizar o forno, visando minimizar o consumo energético e os custos operacionais, sem comprometer a qualidade da pintura?

Solução

Dados do Datapaq

+

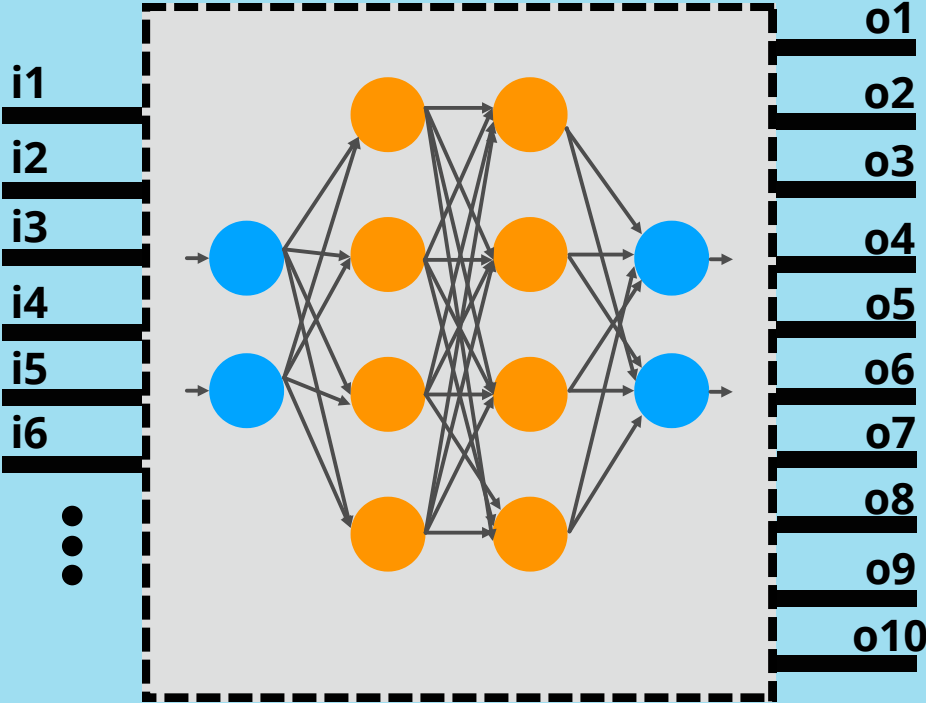
Dados do Forno



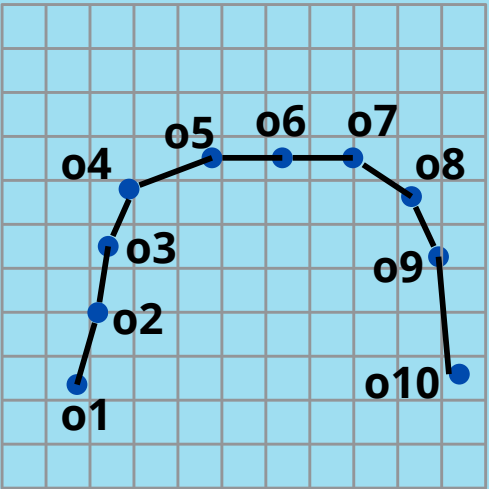
Base de dados



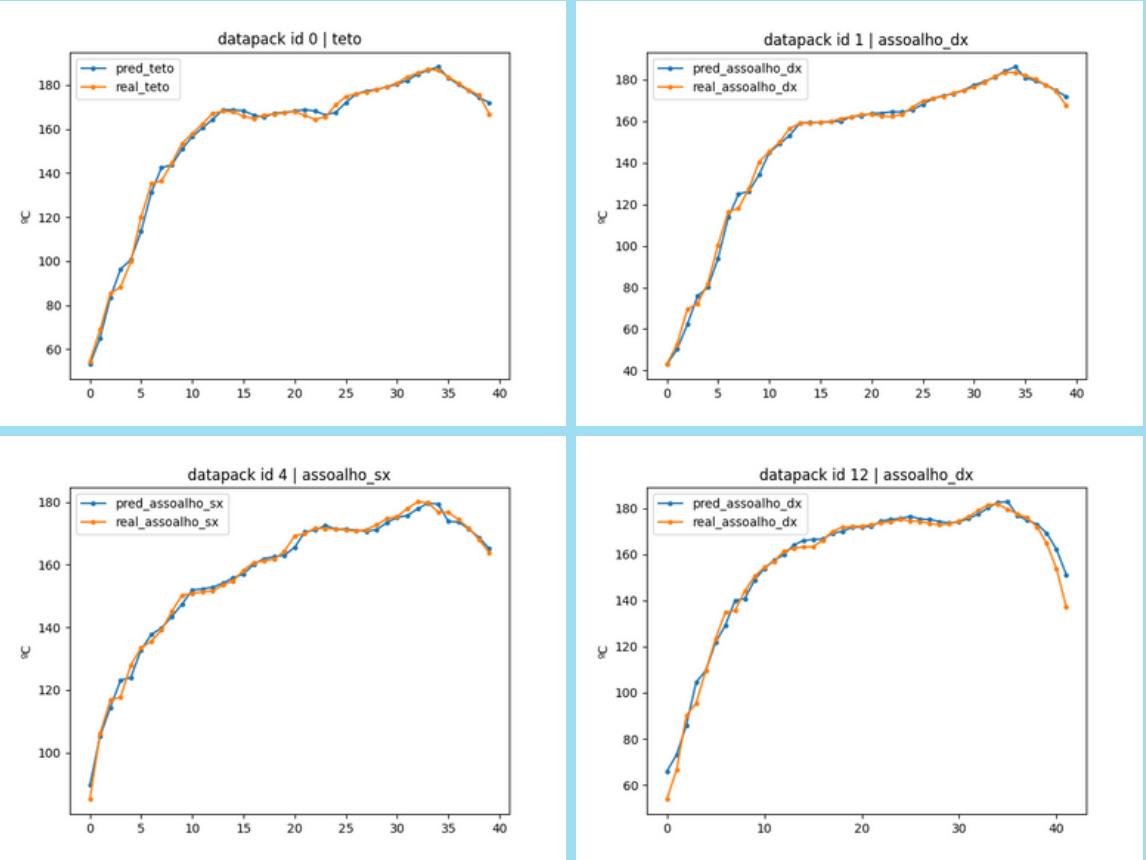
RNA



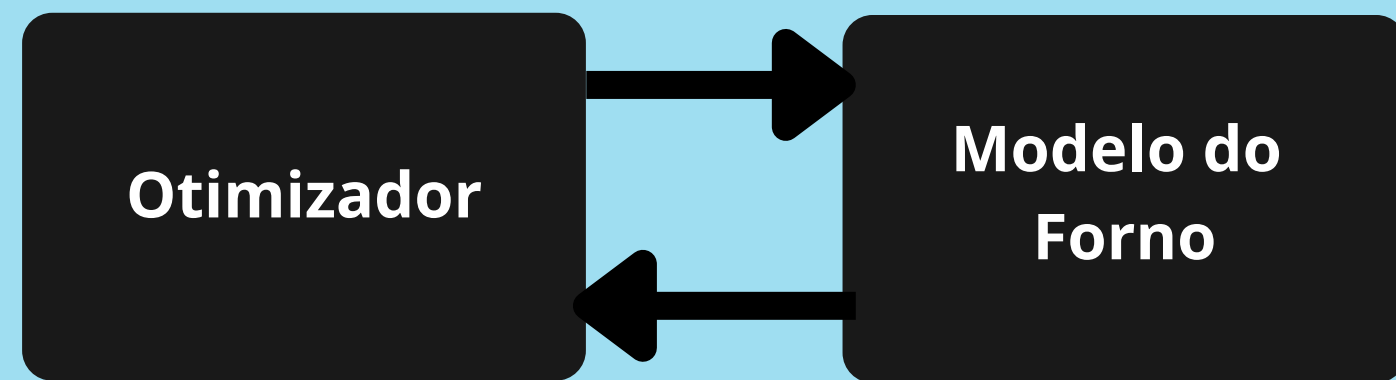
Datapack



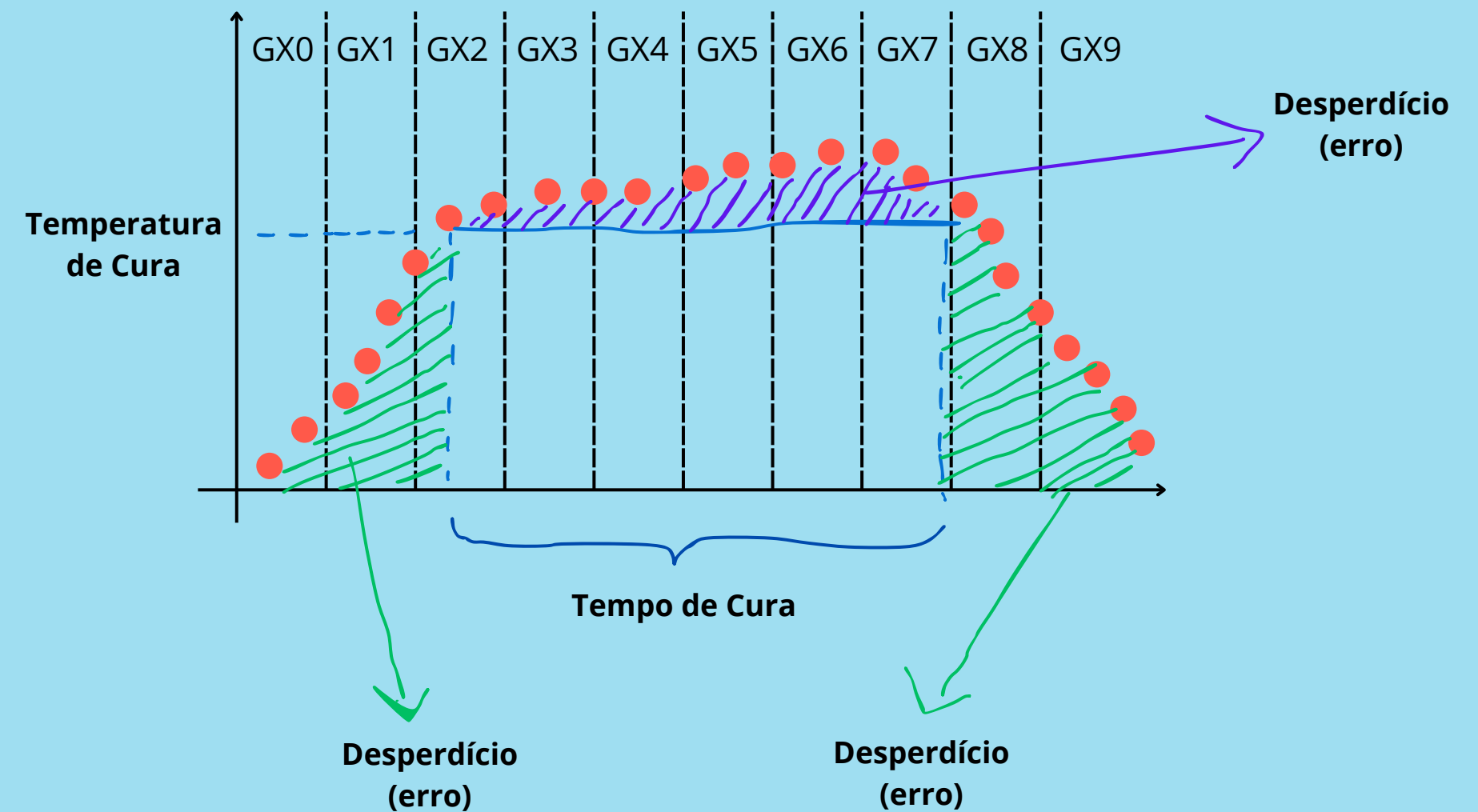
Construir um modelo que reproduz o comportamento do forno (gêmeo digital)



Otimização



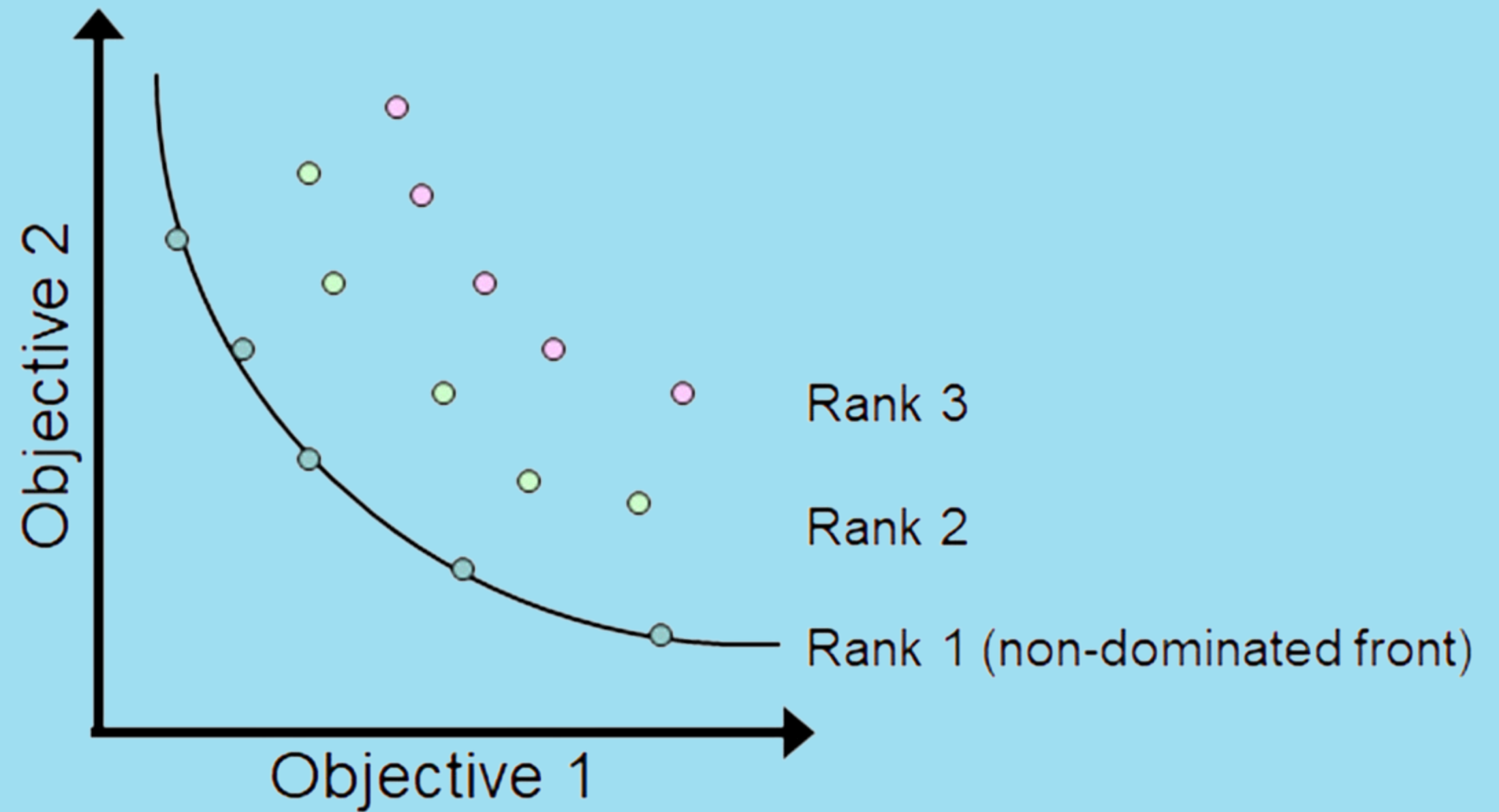
Métricas para diminuir o desperdício de energia



Pode ter mais de um objetivo

Otimização

Otimização multiobjetivo



max(obj1)

min(obj2)



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