

Otimização de Viagens em Companhias Aéreas Brasileiras

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Introdução

FORMULAÇÃO

Geração de Viagens

Busca Local

```
 \begin{array}{|c|c|c|c|} \textbf{for } Blur \ and \ regularisation \ values \ \textbf{do} \\ \hline \textbf{Initialize} \ q, q_{\text{best}} \ \text{and} \ \kappa \\ \hline \textbf{repeat} \\ \hline & \textbf{Calculate} \ \Delta p \tilde{F}(q,0), \ F(q) \\ \hline & \textbf{if} \ F(q) < F(q_{best}) \ \textbf{then} \\ \hline & q_{\text{best}} \leftarrow q \\ \hline & \textbf{Increase} \ \kappa \\ \hline & \textbf{else} \\ \hline & \textbf{if} \ \kappa \ smaller \ than \ threshold \ \textbf{then} \\ \hline & \bot \ return \\ \hline & \bot \ decrease \ \kappa \\ \hline & \textbf{Calculate} \ p \ from \ \Delta p \tilde{F}(q_{best},p) \ \text{and} \ \kappa \\ \hline & q \leftarrow C \circ q, p \\ \hline & \textbf{until} \ converged \\ \hline \end{array}
```

Análise Preliminar

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 \begin{array}{|c|c|c|c|} \textbf{for } Blur \ and \ regularisation \ values \ \textbf{do} \\ \hline & \textbf{Initialize} \ q, q_{\text{best}} \ \text{and} \ \kappa \\ \hline & \textbf{repeat} \\ \hline & \textbf{Calculate} \ \Delta p \tilde{F}(q,0), F(q) \\ & \textbf{if} \ F(q) < F(q_{best}) \ \textbf{then} \\ & q_{\text{best}} \leftarrow q \\ & \textbf{Increase} \ \kappa \\ & \textbf{else} \\ \hline & \textbf{if} \ \kappa \ smaller \ than \ threshold \ \textbf{then} \\ & \bot \ \text{return} \\ & \bot \ \text{decrease} \ \kappa \\ \hline & \textbf{Calculate} \ p \ \text{from} \ \Delta p \tilde{F}(q_{best},p) \ \text{and} \ \kappa \\ & q \leftarrow C \circ q, p \\ & \textbf{until} \ converged \\ \hline \end{array}
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Geração de Colunas

Algoritmo Genético

```
for Blur and regularisation values do

Initialize q, q_{\text{best}} and \kappa

repeat

Calculate \Delta p \tilde{F}(q, 0), F(q)

if F(q) < F(q_{best}) then

q_{\text{best}} \leftarrow q

Increase \kappa

else

if \kappa smaller than threshold then

\Gamma return

decrease \kappa

Calculate p from \Delta p \tilde{F}(q_{best}, p) and \kappa

q \leftarrow C \circ q, p

until converged
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RESULTADOS

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Conclusões
                              REFERENCIAS
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