$L(x,y) = f(x) + y^{T}c(x)$ $\nabla L(x,y) = \begin{bmatrix} \nabla f(x) + J(x)^{T}y \\ c(x) \end{bmatrix} = 0$ $\nabla^{2}L(x,y) = \begin{bmatrix} \nabla^{2}f(x) + \sum \nabla^{2}c_{1}(x)y \\ J(x) \end{bmatrix} = 0$ $\nabla^{2}L(x,y) = \begin{bmatrix} \nabla^{2}f(x) + \sum \nabla^{2}c_{1}(x)y \\ J(x) \end{bmatrix}$ Dadon Xx e yx; gx= (Tf(x1c), (x= ((xk), Ax= J(xk), Br=B(Xr/K) BR AR DI DX = - [9K+ARYR]
[AR O] [DY] = - [CR] $\begin{cases} B_{\kappa} \Delta \times + g_{\kappa} + A_{\kappa} (\gamma_{\kappa} + \Delta \gamma) = 0 \\ A_{\kappa} \Delta \times + c_{\kappa} \end{cases} = 0$ min Jax Brax + Dxgx S.2 Arax + Cr = 0 $L(x_{k}+\Delta x, y_{k}) = L(x_{k}, y_{k}) + (g_{k}+A_{k}y_{k})\Delta x + \frac{1}{2}\Delta x^{T}B_{k}\Delta x + o(\|\Delta x\|^{2})$ $C(X_k + \Delta X) = C(X_k) + J(X_k) \cdot \Delta X + o(\|\Delta X\|)$ Funça de Mérito $\varphi_{\eta}(x) = f(x) + \eta P(x)$ e f(x) + n ||c(x)||1 $\alpha + (x) + n \| c(x) \|_{\mathcal{X}}$ of (x) + 1 = 1 | c (x) | 2 L-A. Le Flotcher $P(x) = F(x) + y(x)^{T}c(x) + \frac{1}{2}\eta \|c(x)\|^{2}$ $y(x) = \arg\min_{y} \frac{1}{2} ||\nabla f(x) + J(x)||^2$ $= - \left[\int_{(x)}^{(x)} J(x) \right] \int_{(x)}^{(x)} J(x) dx$ $- \left[\int_{(x)}^{(x)} J(x) \right] \int_{(x)}^{(x)} J(x) dx$ 1/0X/15 DIC Ak AX + Ck-C Byrd-Omojokun Leela, Nocedal, Plantuga TIXI Efeito Maratos P(x) + y P(x) $Q_n(x+\Delta x) > Q_n(x)$