

# Comparisons with an ADMM (first-order)

Algorithm from Bertsekas and J. N. Tsitsiklis, *Parallel and Distributed Computation* (1997)

$$L_\rho := \sum_i \left[ f_i(x_i) + y_i^{(\ell)}(x_i - z_{i-1}) + y_i^{(c)}(x_i - z_i) + y_i^{(r)}(x_i - z_{i+1}) + \frac{\delta}{2} |x_i - z_{i-1}|^2 + \frac{\delta}{2} |x_i - z_i|^2 + \frac{\delta}{2} |x_i - z_{i+1}|^2 \right]$$

## Numerical comparison

