Previous Work

Algorithms:

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• Woodruff and Zhang '12 : $\tilde{O}(s^{p-1}/\varepsilon^{\Theta(p)} \cdot \operatorname{poly}(\log n))$

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• For general functions $O(s^2 \cdot c_{f,s} / \varepsilon^2 \cdot \operatorname{poly}(\log n))$

Lower Bounds:

• Woodruff and Zhang '12 : $\Omega(s^{p-1}/arepsilon^2)$ (s-BTX problem)

ullet Kannan, Vempala and Woodruff '14 : $\Omega(c_{f,s}/arepsilon)$ (s-Player Promise Set-Disjointness)

Distributed function monitoring

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The Parameter $C_{f,S}$