Results

- A protocol using a $O(c_f[s] \cdot \text{polylog}(n)/\varepsilon^2)$ bits of communication

- For $p \geq 2$, protocol using $O(s^{p-1} \cdot \text{polylog}(n)/\varepsilon^2)$ bits -- optimal up to polylog factors

- The $\Omega(s^{p-1}/\varepsilon^2)$ lower bound can be extended to general functions to show $\Omega(c_f[s]/\varepsilon^2)$ lower bound

- Requires that $c_f[s]$ is realized for $y_1 = y_2 = \cdots = y_s$

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$$f(y_1 + \cdots + y_s) \leq \frac{c_f[s]}{s}\left(\sqrt{f(y_1)} + \cdots + \sqrt{f(y_s)}\right)^2$$

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