

$$\left\{ \begin{array}{ll} \text{Min}_{\leq_{\overline{N} \times \overline{N}}} & \langle x, y \rangle, \\ \text{s.t.} & x + y \geq \lceil \sqrt{x} \rceil + \lceil \sqrt{y} \rceil + c. \end{array} \right.$$