# Jack Y. Araz

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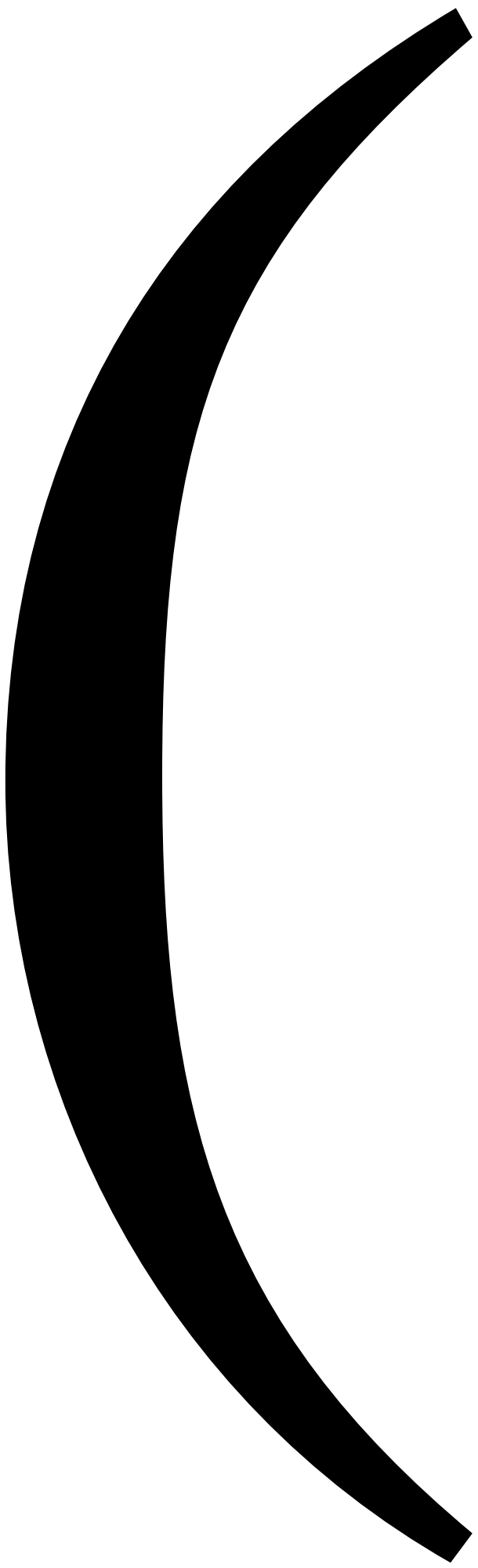
Jefferson Lab
EXPLORING THE NATURE OF MATTER

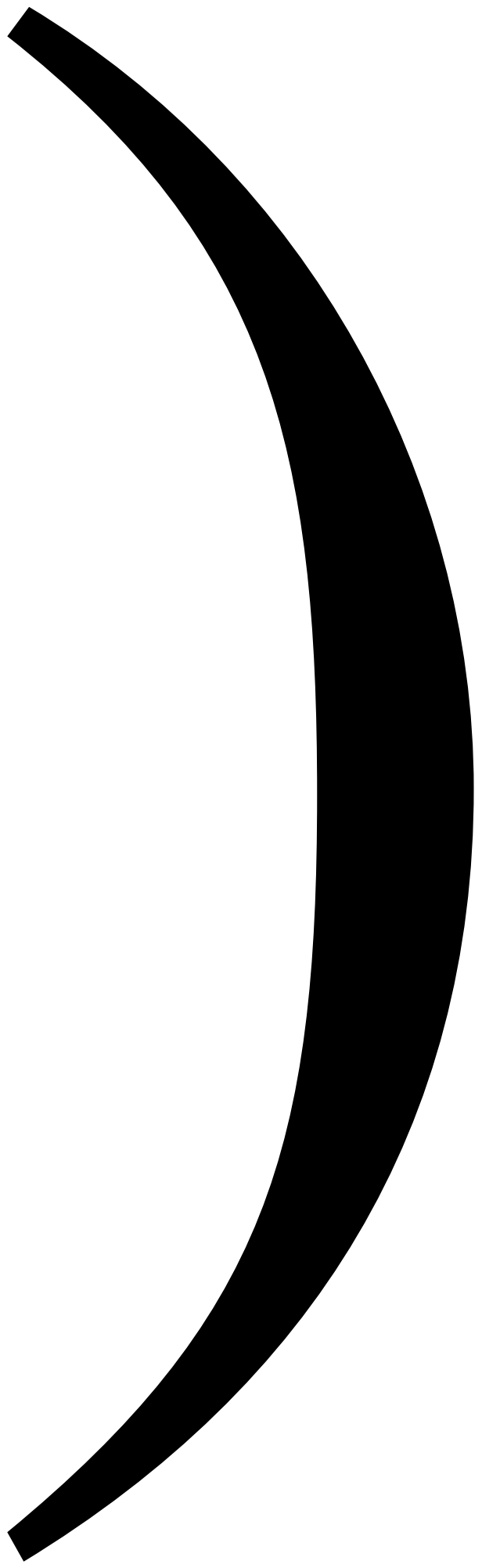
OLD DOMINION UNIVERSITY
1930

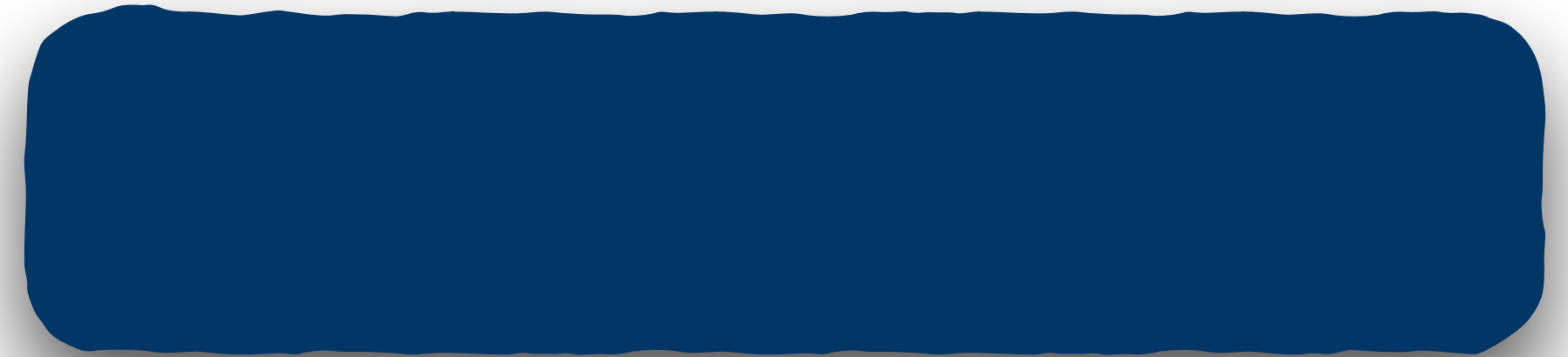
$$\nabla_\theta f(\theta) = \frac{1}{2}\left[f(\theta + \varepsilon) - f(\theta - \varepsilon)\right]$$

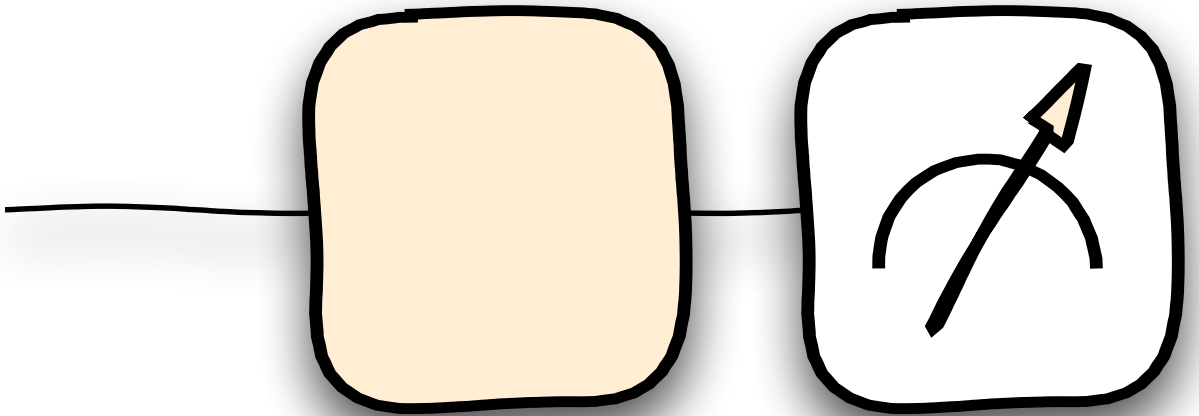
Quantum computer can not compute gradients!

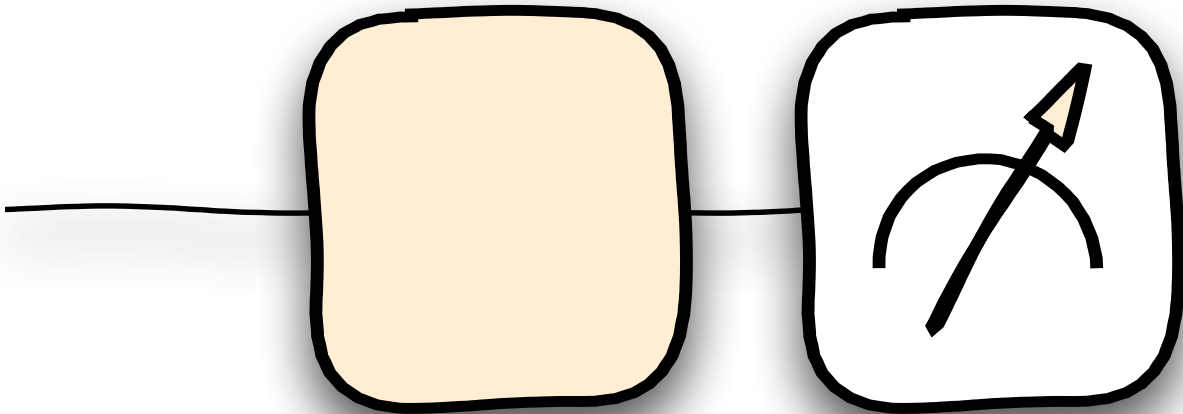
$$\nabla_\theta f(\theta) = \frac{1}{2}$$



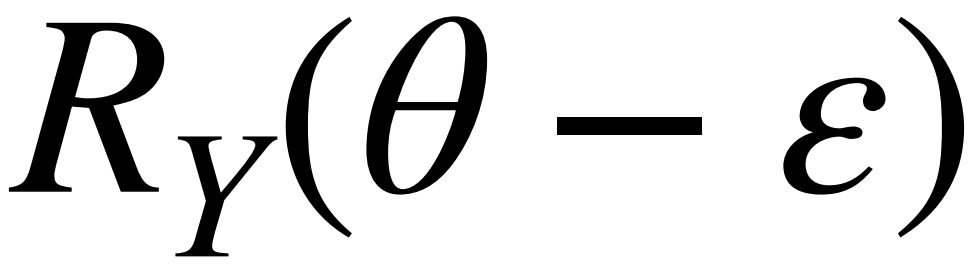








$$R_Y(\theta + \varepsilon)$$



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