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 Background...
 
 Layout
 
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Layout ▼

Theme...

Transition...

**Dillon Duntzman**

# Background

Why did we choose this project?

2018

We can potentially  
provide more data and more  
flexibility, better customer  
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# Finance Introduction

What is a European call option?

IBM stock has been trading at ~\$140 on the NYSE

Assume that one month ago, Zach bought a European call option at a strike price of \$130 with an expiration date of today.

He can then sell the stock at its market value of \$140 for a profit of \$10.

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## Improving this Pricing Method

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**Quantum Monte Carlo Methods**

**Loading Uncertainty Models**

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Create the G gate

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## Create the Chi State

The R gate encodes the payoff function  $v(x)$  in an ancillary qubit

Measuring the final qubit gives the expectation

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