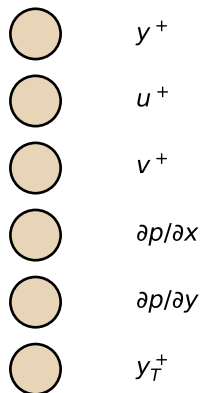
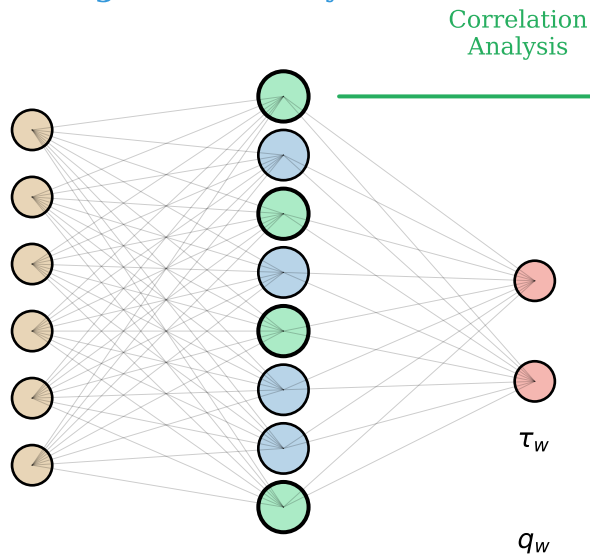


## Chapter 6: Do Networks Discover Physics Internally?

### Basic Inputs



### Single Hidden Layer Network



Correlation  
Analysis

### Discovered Physics

Diagram showing four discovered physics features (represented by green circles) arranged vertically:

$y^+$	$ r  = 0.90$
$u^2 y^2 / \nu$	$ r  = 0.85$
$\log(y_T^+)$	$ r  = 0.87$
$u_{friction}^+$	$ r  = 0.80$

Architecture  
Invariant!

*Key insight: Neurons learn physics features that are invariant across architectures*