

# SPINS Lab 3 Tables

Quantum Mechanics

Fall 2019

Unknown state  $|\psi_1\rangle$

Probabilities	Axis		
Result	$x$	$y$	$z$
$S_i = \hbar$			
$S_i = 0$			
$S_i = -\hbar$			

Unknown state  $|\psi_2\rangle$

Probabilities	Axis		
Result	$x$	$y$	$z$
$S_i = \hbar$			
$S_i = 0$			
$S_i = -\hbar$			

Unknown state  $|\psi_3\rangle$

Probabilities	Axis		
Result	$x$	$y$	$z$
$S_i = \hbar$			
$S_i = 0$			
$S_i = -\hbar$			

Unknown state  $|\psi_4\rangle$

Probabilities	Axis		
Result	$x$	$y$	$z$
$S_i = \hbar$			
$S_i = 0$			
$S_i = -\hbar$			

## Spin 1 Interferometer

Beams	Experiment			Theory		
	$\mathcal{P}_{+1}$	$\mathcal{P}_0$	$\mathcal{P}_{-1}$	$\mathcal{P}_{+1}$	$\mathcal{P}_0$	$\mathcal{P}_{-1}$
$ 1\rangle_x$						
$ 0\rangle_x$						
$ -1\rangle_x$						
$ 1\rangle_x,  0\rangle_x$						
$ 1\rangle_x,  -1\rangle_x$						
$ 0\rangle_x,  -1\rangle_x$						
$ 1\rangle_x,  0\rangle_x,$ $ -1\rangle_x$						