

## Chapter 1

### Motivation

Human search ability

POMDP bottleneck

Non-Gauss uncertainty

### Goals

Human decision making

Continuous POMDP

Non-Gauss state filter

## Chapter 2

### Background

Decision theory

MDP & POMDP

Acting under uncertainty

## Chapter 3

### Searching as humans

PbD-POMDP

Mixture of strategies

Risk prone & averse

## Chapter 5

### Non-parametric BSSE

Negative information

Sparse likelihood

## Chapter 4

### Peg in hole

RL-PbD-POMDP

Scale & precision

Human data

## Chapter 6

### Conclusion

Goals achieved

Future work

Outlook