

# Reinforcement Learning Theory Learning

Yue Wang

MSRA

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## Abstract

a simple note for RL theory

*Keywords:*

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## 1. Introduction

RL theory is very long history and these days

- Bullet point one
- Bullet point two

1. Numbered list item one
2. Numbered list item two

## 2. Notation and Formatting

some notations:

$\mathcal{S}$	the state space
$S_t$	the state at time t, stochastic
$s_t$	the state at time t, actual
$s$	the state, actual
$R_t$	the reward at time t, stochastic
$r_t$	the reward at time t, actual
$r$	the reward, actual

Treatments	Response 1	Response 2
Treatment 1	0.0003262	0.562
Treatment 2	0.0015681	0.910
Treatment 3	0.0009271	0.296

Table 1: Table caption

### 2.1. Subsection Two

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Figure 1: Figure caption

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$$e = mc^2 \tag{1}$$

### 3. RL algorithms

### 4. RL convergence theory

#### 4.1. *counterexample*

[1]

### References

- [1] R. S. Sutton, A. G. Barto, Reinforcement learning: An introduction, 2011.