LaTeX Example

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Abstract

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1 Introduction

1.1 Background

1.2 Math

Add something. This is a stochastic differential eqation:

$$\begin{cases} dX(t) = f\big(X(t)\big)dt + \sum_{r=1}^{m} g_r\big(X(t)\big) \circ dW_r(t), \quad t \in [0,T], \\ X(0) = X_0, \end{cases} \tag{1}$$

where $f(x) \in \mathbb{R}^n$ is called the drift.

Eq. 1 is an SDE.

- First .....
  - aaaaa
  - bbbbb
- Second .....
- Third ....

1. First .....
2. Second .....
   - aaaaaaaa
   - bbbbbbbb
3. Third ....

1.3 Figure

Figure 1 is a path of an one dimensional Wiener Process.

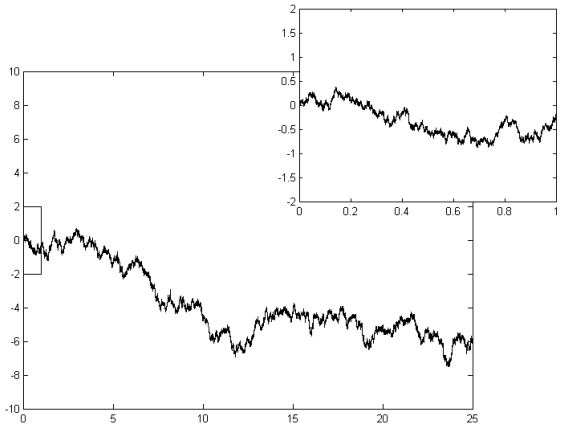

Figure 1: This is the figure caption.

1.3.1 Table

A	B	C	D	E	F
1	2	3	4	5	6
7	8	9	10	11	12

Table 1: This is the table caption.

1.4 Citation

This is a citation[1, 2, 3].

1.5 Algorithm

References

[1] D. Silver, A. Huang, C. J. Maddison, A. Guez, and D. Hassabis, "Mastering the game of Go with deep neural networks and tree search," *Nature*, vol. 529, no. 7587, pp. 484–489, 2016.

Algorithm 1 Calculate $y = x^n$

Require: $n \geq 0 \vee x \neq 0$
Ensure: $y = x^n$
  $y \leftarrow 1$
  if $n < 0$ **then**
    $X \leftarrow 1/x$
    $N \leftarrow -n$
  else
    $X \leftarrow x$
    $N \leftarrow n$
  end if
  while $N \neq 0$ **do**
    if N is even **then**
      $X \leftarrow X \times X$
      $N \leftarrow N/2$
    else {N is odd}
      $y \leftarrow y \times X$
      $N \leftarrow N - 1$
    end if
  end while

[2] V. Mnih, K. Kavukcuoglu, D. Silver, A. A. Rusu, J. Veness, M. G. Bellemare, A. Graves, M. Riedmiller, A. K. Fidjeland, and G. Ostrovski, "Human-level control through deep reinforcement learning," *Nature*, vol. 518, no. 7540, p. 529, 2015.

[3] V. Mnih, A. P. Badia, M. Mirza, A. Graves, T. Lillicrap, T. Harley, D. Silver, and K. Kavukcuoglu, "Asynchronous methods for deep reinforcement learning," in *Proceedings of The 33rd International Conference on Machine Learning*, ser. Proceedings of Machine Learning Research, M. F. Balcan and K. Q. Weinberger, Eds., vol. 48. New York, New York, USA: PMLR, 20–22 Jun 2016, pp. 1928–1937. [Online]. Available: http://proceedings.mlr.press/v48/mniha16.html