

Differential Expression Analysis Techniques for Single-Cell RNA-seq Experiments

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Outline

Introduction

- Data (Kevin)

- Objective (Nima)

Methodology

- ZINB-WaVE (Kevin)

- DropLasso (Nima)

- Comparison

Conclusions

- Review

The Data: Single-Cell RNA-seq



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The Objective: Differential Expression



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ZINB-WaVE I

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► ...

ZINB-WaVE II

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ZINB-WaVE III

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ZINB-WaVE IV

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ZINB-WaVE V

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DropLasso I

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DropLasso II

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DropLasso III

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DropLasso IV

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DropLasso V

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ZINB-WaVE v. DropLasso I

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ZINB-WaVE v. DropLasso II

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ZINB-WaVE v. DropLasso III

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References I

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- Davide Risso, Fanny Perraudeau, Svetlana Gribkova, Sandrine Dudoit, and Jean-Philippe Vert. ZINB-WaVE: A general and flexible method for signal extraction from single-cell RNA-seq data. *bioRxiv*, 2017.