

# Infinite Simplices: An Excursion into Simplicial Sets

## Research Sharing Luncheon

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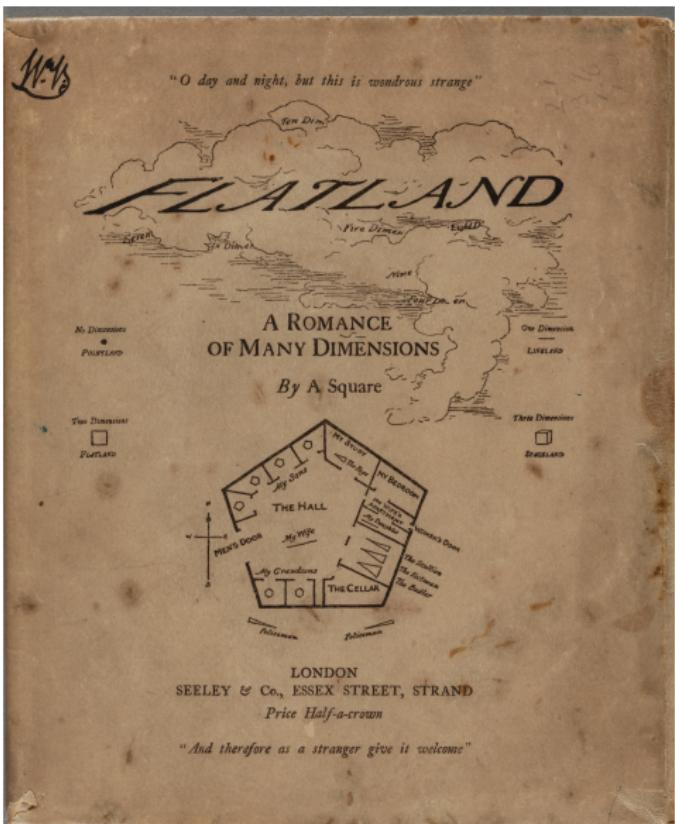
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# Outline

- Hypergraphs
- Simplicial Sets
- Synthesis

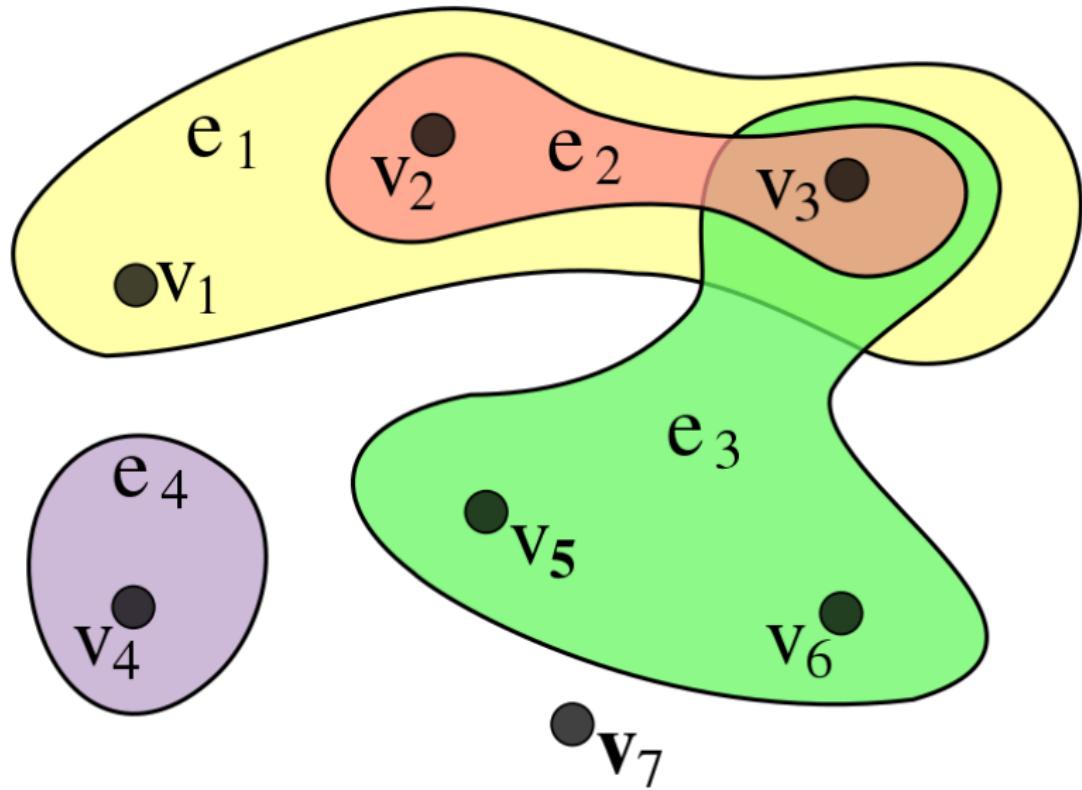
# Flatland by Edwin Abbott



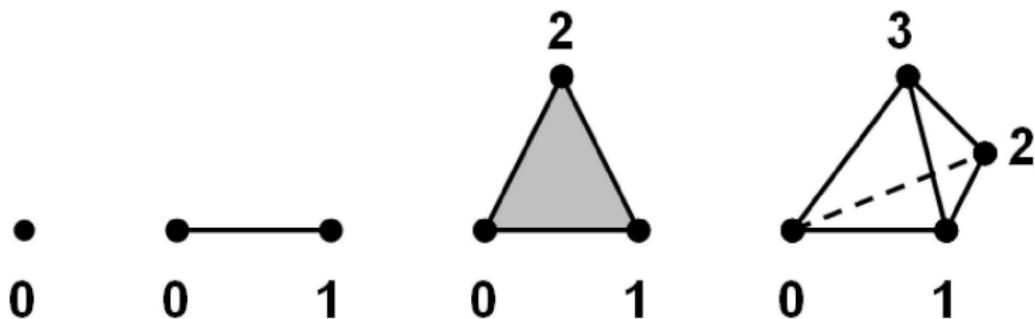
Picture: Wikipedia

# Graph

# Hypergraph

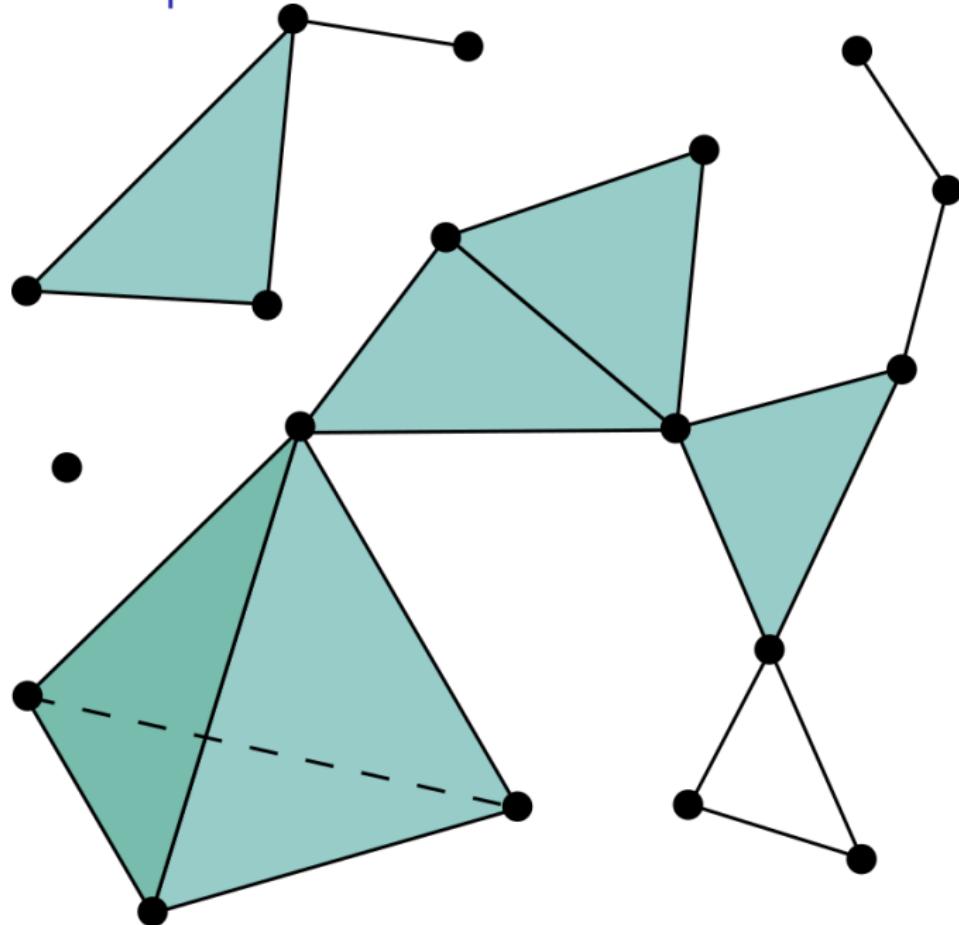


## Standard simplices

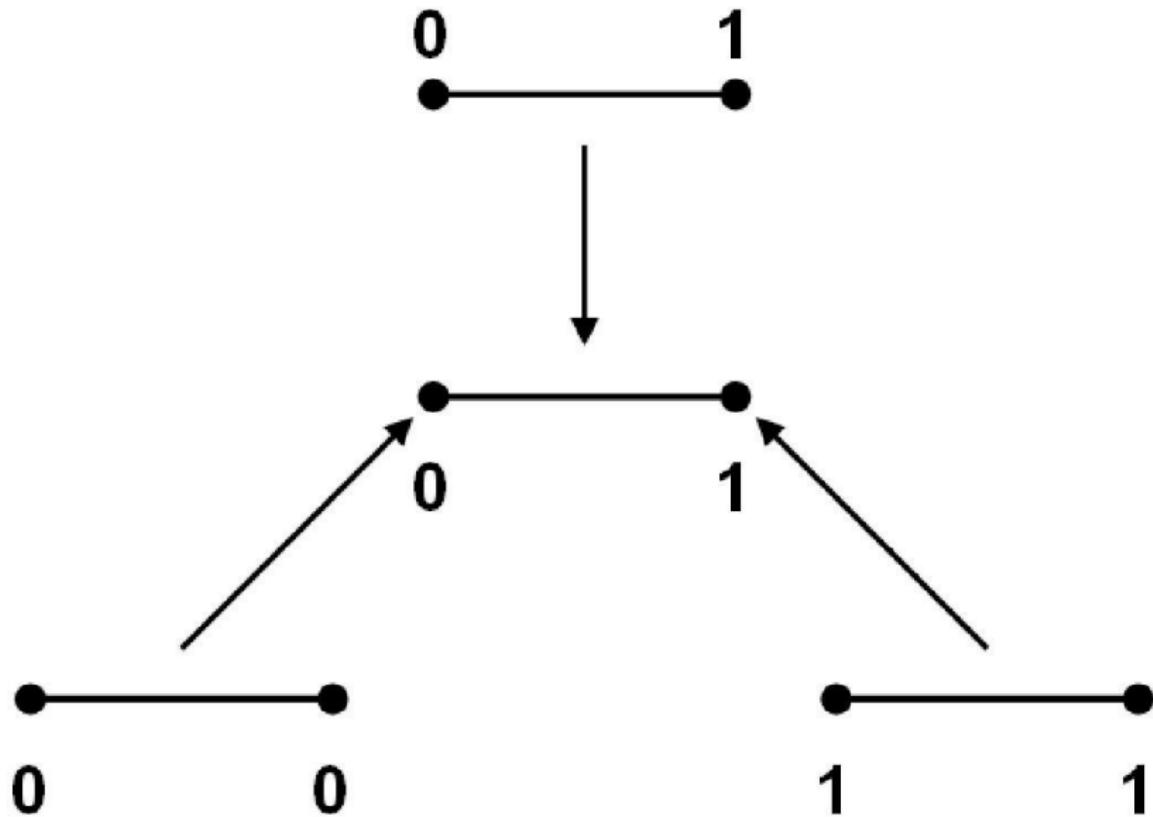


Picture: Friedman, Greg. "Survey article: an elementary illustrated introduction to simplicial sets." The Rocky Mountain Journal of Mathematics (2012): 353-423.

# Simplicial Complex

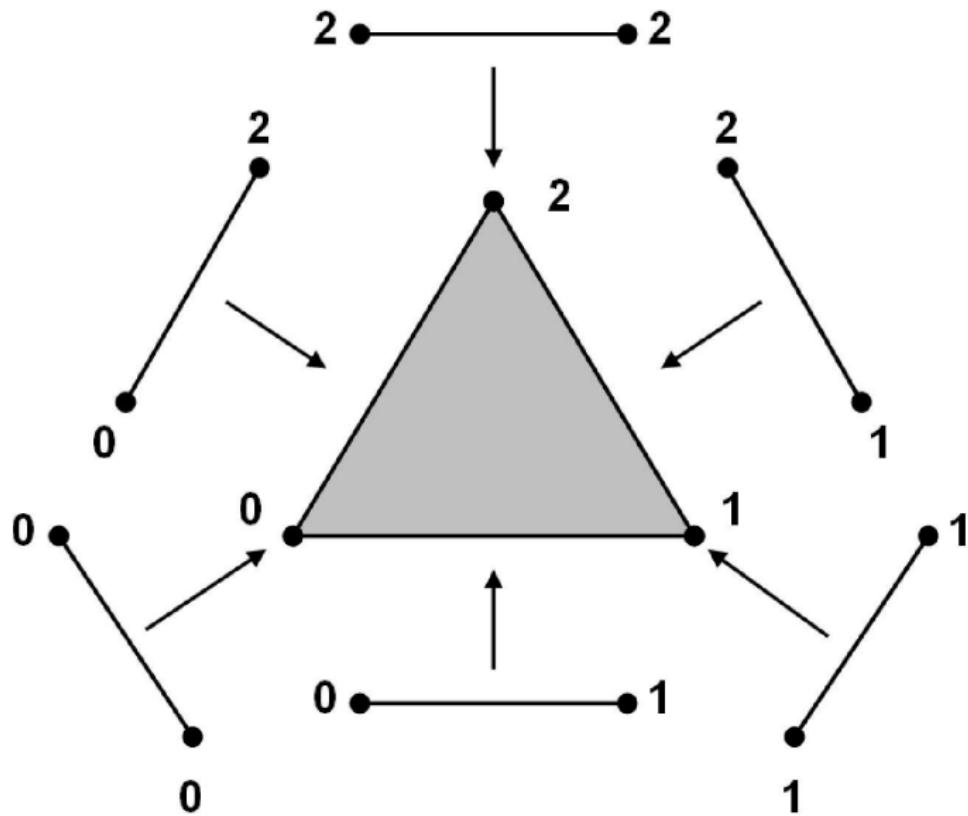


## 1-simplex [0,1] Expanded Edition



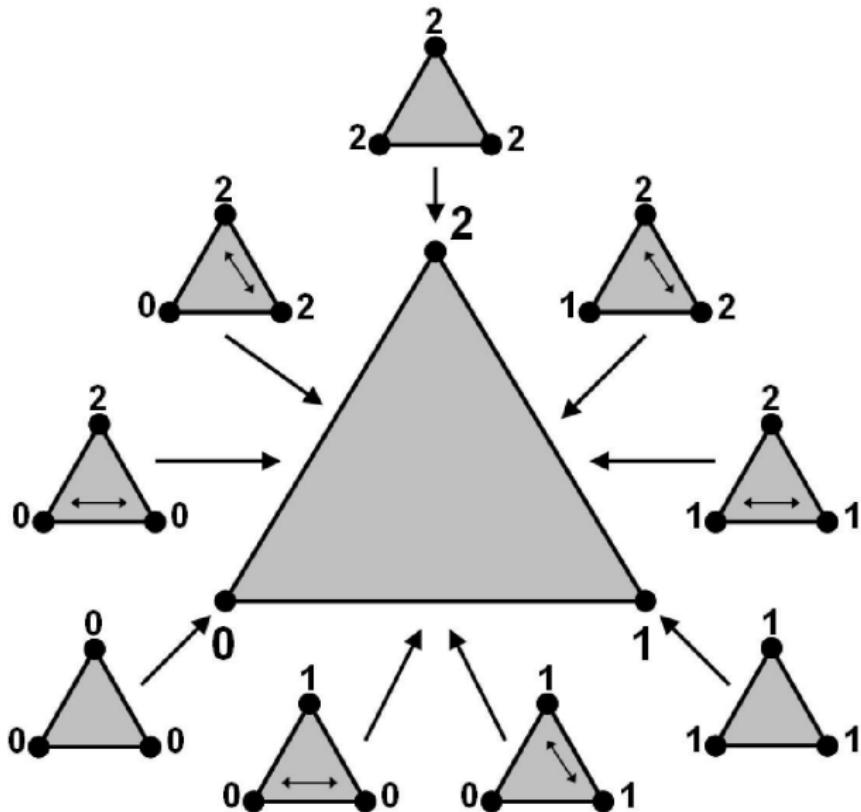
Picture: Friedman, Greg. "Survey article: an elementary illustrated introduction to simplicial sets." The Rocky Mountain Journal of Mathematics (2012): 353-423.

## 2-simplex [0,1,2] Expanded Edition



Picture: Friedman, Greg. "Survey article: an elementary illustrated introduction to simplicial sets." The Rocky Mountain Journal of Mathematics (2012): 353-423.

## 2-simplex [0,1,2] Expanded Edition ctd



Picture: Friedman, Greg. "Survey article: an elementary illustrated introduction to simplicial sets." The Rocky Mountain Journal of Mathematics (2012): 353-423.

# Hereon..

- Machine Learning with Simplicial Sets

# Hereon..

- Machine Learning with Simplicial Sets
- Model misinformation?