

Riordan-W. (2012+)

Janson's Inequality holds for general increasing events

- **Basic Idea:** $\mathbb{P}(X \leq \mathbb{E}X - t)$ is exponentially small
 - Underlying product space
 - $X = \sum_i \mathbf{1}_{\{A_i\}}$

Janson's Inequality (1990)

A_i increasing events of *special form*

Our Result (simplified)

A_i *arbitrary* increasing events