

Analysis of Biological Networks: Path Discovery and Module Detection

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December 5, 2004

Biological Networks

- want to find group of genes that behave similarly **only** a group of conditions.
 - submatrix : subset of rows & columns.
1. given **real-valued** matrix, find submatrix of which rows are **highly correlated**. (Cheng & Church, 2000)
 2. given **0-1 matrix**, find **unusually dense** submatrix. (Cheng & Church, 2003)
 3. given matrix over **finite alphabet**, find submatrix of which rows read the **same string**. (Yang, Lonardi & Szpankowski, 2003)