Inferring Social Ties across Heterogeneous Networks

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**Motivation**

**Problem Definition**

**INPUT:** a source networks $G_s$ with abundantly labeled relationships and a target network $G_t$ with limited labeled relationships.

**OUTPUT:** a predictive function $f : (G_t \mid G_s) \rightarrow Y_1$ for inferring the type of relationships.

**Modeling:** Transfer Factor Graph Model

**Bridge: Social Theories**

**Data Collection**

**Social Balance**

**Structural Hole**

**Social Status**

**Strong/Weak Tie**

**Objective function**

**Learning Parameters**

**Experiments**

**Factor Contribution**

**Homogeneous Networks**

**Case Study**