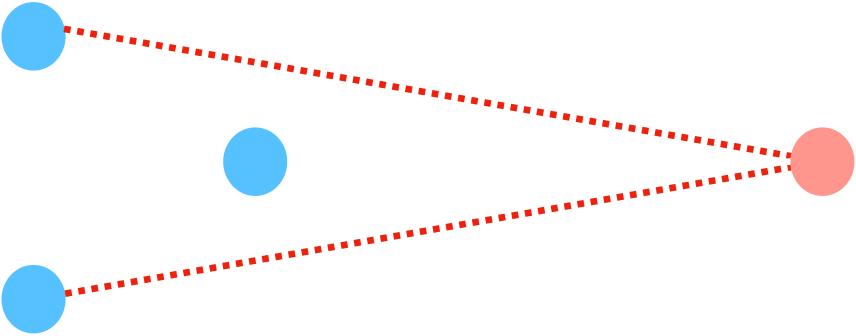


given: find: subject to:

infer ties using a model-based approach



Amati, V., Shafie, T., & Brandes, U. (2018). Reconstructing archaeological networks with structural holes. Journal of Archaeological Method and Theory, 25, 226-253.

reconstructing networks of the past

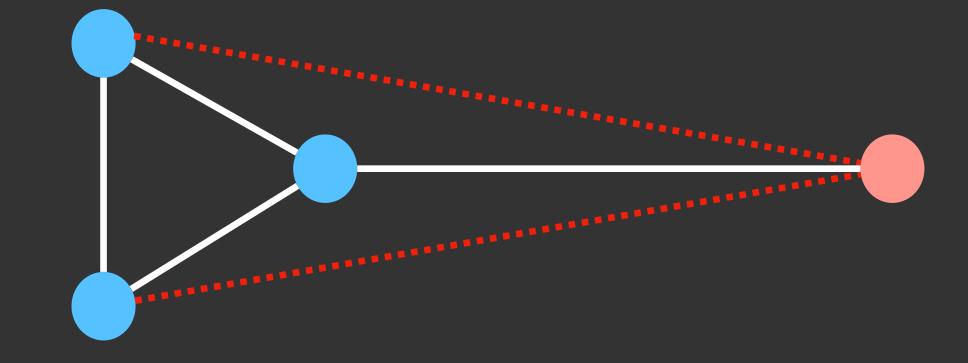
archaeological networks: new framework using ERGMs

infer ties using a model-based approach

given: fragmentary data

find: plausible completion

subject to: constraints and assumptions



Burt's theory on structural holes (2001) \Longrightarrow define structurally efficient networks

network property	configuration	tendency for/against	reference
cohesion		sites to share contacts	Blake (2014) Boomert (2000 Keegan (2007)
node covariate		sites with certain attributes having more contacts	Hofman et al. (2014)
connectedness		presence of intermediaries regulating contacts	Knippenberg (2007)