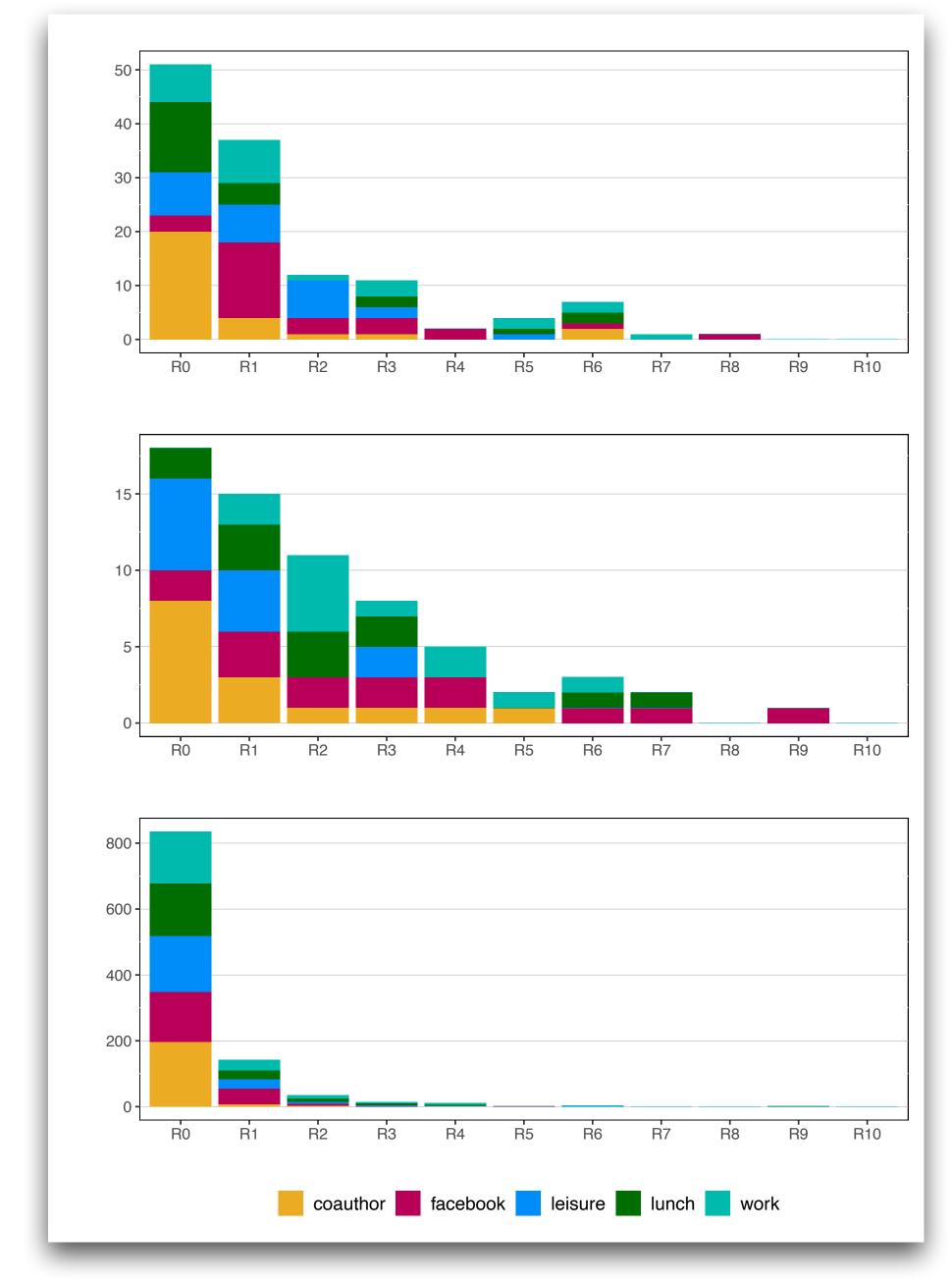
observed edge multiplicities

$oxed{arphi}$ complexity sequence $\mathbf{R} = (R_0, R_1, ..., R_k)$ where

- $R_k = \sum_{i=1}^{n} \sum_{j=1}^{n} I(M_{ij} = k)$ for k = 0, 1, ..., mis the frequencies of edge multiplicities

- $\checkmark R_0$ number of vertex pair sites with no edge occupancy
- $\checkmark R_1$ number of vertex pair sites with single edge occupancy
- \checkmark R_2 number of vertex pair sites with double edge occupancy :



compare to expected values from random multigraph models

observed edge multiplicities

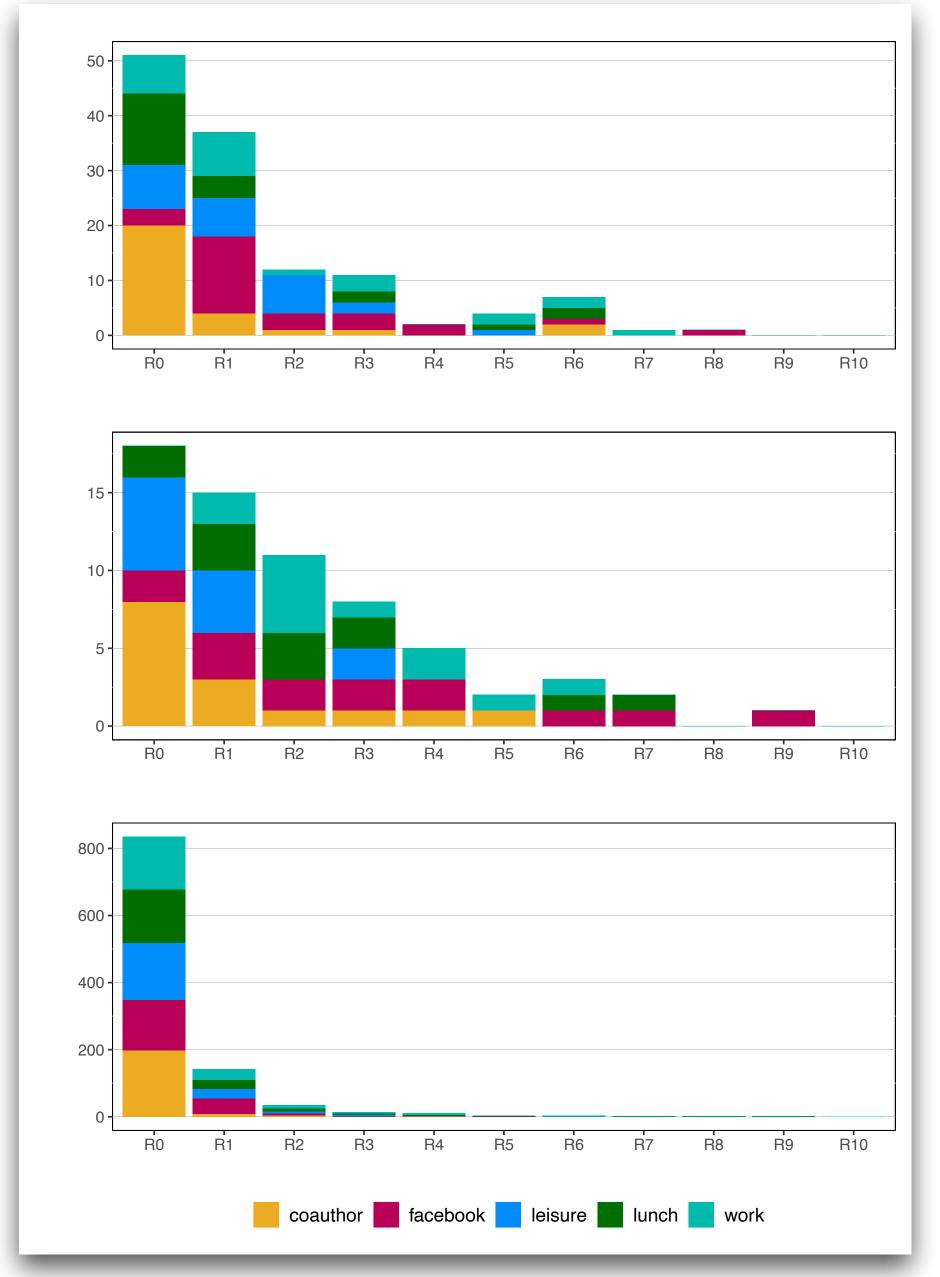
 \square complexity sequence $\mathbf{R} = (R_0, R_1, ..., R_k)$ where

$$R_k = \sum_{i \le j} \sum_{i \le j} I(M_{ij} = k)$$
 for $k = 0, 1, ..., m$

is the frequencies of edge multiplicities

- $\checkmark R_0$ number of vertex pair sites with no edge occupancy
- $\checkmark R_1$ number of vertex pair sites with single edge occupancy
- \checkmark R_2 number of vertex pair sites with double edge occupancy :

compare to expected values from random multigraph models



expected edge multiplicities