| Train on INTER, test on INTRA <sub>1</sub> |                |                |                 |                                 |                                    | Train on INTER, test on INTRA <sub>0</sub> |                |                |                 |                                 |                                    | Train on $INTRA_0$ , test on $INTRA_1$ |                |                |                 |                                 |                     |                           |
|--|----------------|----------------|-----------------|---------------------------------|------------------------------------|--|----------------|----------------|-----------------|---------------------------------|------------------------------------|--|----------------|----------------|-----------------|---------------------------------|---------------------|---------------------------|
| 0.62                                       | 0.68           | 0.72           | 0.72            | 0.79                            | 0.49                               | 0.69                                       | 0.68           | 0.70           | 0.76            | 0.79                            | 0.37                               | 0.48                                   | 0.52           | 0.54           | 0.48            | 0.60                            | 0.17                | SPRINT<br>(AUPR)          |
| 0.93                                       | 0.87           | 0.90           | 0.85            | 0.81                            | 0.84                               | 0.97                                       | 0.85           | 0.88           | 0.96            | 0.78                            | 0.78                               | 0.51                                   | 0.51           | 0.52           | 0.48            | 0.52                            | 0.50                | Richoux-<br>FC            |
| 0.80                                       | 0.81           | 0.86           | 0.81            | 0.79                            | 0.84                               | 0.50                                       | 0.52           | 0.85           | 0.91            | 0.73                            | 0.71                               | 0.48                                   | 0.51           | 0.50           | 0.51            | 0.52                            | 0.52                | Richoux-<br>LSTM          |
| 0.93                                       | 0.89           | 0.89           | 0.84            | 0.80                            | 0.85                               | 0.95                                       | 0.85           | 0.87           | 0.96            | 0.77                            | 0.77                               | 0.52                                   | 0.55           | 0.54           | 0.50            | 0.53                            | 0.51                | DeepFE                    |
| 0.87                                       | 0.82           | 0.87           | 0.83            | 0.81                            | 0.83                               | 0.80                                       | 0.80           | 0.86           | 0.93            | 0.76                            | 0.75                               | 0.52                                   | 0.58           | 0.56           | 0.50            | 0.56                            | 0.52                | PIPR                      |
| 0.49                                       | 0.50           | 0.50           | 0.50            | 0.52                            | 0.52                               | 0.50                                       | 0.51           | 0.71           | 0.71            | 0.50                            | 0.61                               | 0.50                                   | 0.50           | 0.50           | 0.50            | 0.49                            | 0.53                | D-SCRIPT                  |
| 0.49                                       | 0.55           | 0.56           | 0.76            | 0.68                            | 0.59                               | 0.50                                       | 0.48           | 0.55           | 0.63            | 0.57                            | 0.51                               | 0.52                                   | 0.55           | 0.50           | 0.53            | 0.48                            | 0.51                | Topsy Turvy               |
| 0.89                                       | 0.89           | 0.87           | 0.83            | 0.79                            | 0.72                               | 0.95                                       | 0.87           | 0.87           | 0.96            | 0.77                            | 0.61                               | 0.58                                   | 0.53           | 0.50           | 0.53            | 0.50                            | 0.50                | RF-PCA                    |
| 0.65                                       | 0.71           | 0.65           | 0.70            | 0.68                            | 0.50                               | 0.69                                       | 0.65           | 0.68           | 0.78            | 0.62                            | 0.50                               | 0.54                                   | 0.64           | 0.57           | 0.60            | 0.50                            | 0.50                | SVM-PCA                   |
| 0.92                                       | 0.90           | 0.87           | 0.84            | 0.82                            | 0.76                               | 0.95                                       | 0.87           | 0.86           | 0.96            | 0.78                            | 0.72                               | 0.51                                   | 0.49           | 0.50           | 0.50            | 0.50                            | 0.50                | RF-MDS                    |
| 0.87                                       | 0.83           | 0.87           | 0.83            | 0.78                            | 0.71                               | 0.85                                       | 0.76           | 0.85           | 0.94            | 0.72                            | 0.62                               | 0.50                                   | 0.51           | 0.49           | 0.50            | 0.50                            | 0.50                | SVM-MDS                   |
| 0.90                                       | 0.90           | 0.87           | 0.83            | 0.77                            | 0.73                               | 0.94                                       | 0.87           | 0.86           | 0.95            | 0.75                            | 0.61                               | 0.54                                   | 0.51           | 0.50           | 0.52            | 0.51                            | 0.50                | RF-<br>node2vec           |
| 0.72                                       | 0.78           | 0.81           | 0.72            | 0.66                            | 0.53                               | 0.67                                       | 0.74           | 0.81           | 0.75            | 0.63                            | 0.50                               | 0.48                                   | 0.54           | 0.56           | 0.63            | 0.48                            | 0.50                | SVM-<br>node2vec          |
| 0.90                                       | 0.80           | 0.84           | 0.82            | 0.77                            | NA                                 | 0.90                                       | 0.78           | 0.87           | 0.90            | 0.73                            | NA                                 | 0.50                                   | 0.50           | 0.50           | 0.50            | 0.50                            | NA                  | Harmonic<br>Function      |
| 0.90                                       | 0.75           | 0.78           | 0.81            | 0.71                            | 0.50                               | 0.83                                       | 0.75           | 0.85           | 0.86            | 0.67                            | 0.50                               | 0.50                                   | 0.50           | 0.50           | 0.50            | 0.50                            | 0.50                | Global and<br>Local Cons. |
| HUANG<br>(2,850)                           | GUO<br>(4,604) | DU<br>(15,202) | PAN<br>(22,596) | RICHOUX-<br>UNIPROT<br>(28,866) | D-SCRIPT<br>UNBALANCED<br>(33,348) | HUANG<br>(2,850)                           | GUO<br>(4,604) | DU<br>(15,202) | PAN<br>(22,596) | RICHOUX-<br>UNIPROT<br>(28,866) | D-SCRIPT<br>UNBALANCED<br>(33,348) | HUANG<br>(2,410)                       | GUO<br>(4,640) | DU<br>(14,468) | PAN<br>(31,212) | RICHOUX-<br>UNIPROT<br>(39,634) | UNBALANCED (27,148) |                           |