|               |                  |                  | 2017             |                  |                  |       |
|---------------|------------------|------------------|------------------|------------------|------------------|-------|
| 1             | Recall           | nDCG             | AP               | P@10             | Bpref            | - 1.0 |
| CA<br>CP      | 0.8088           | 0.5013<br>0.4819 | 0.1661<br>0.1492 | 0.1867<br>0.1400 | 0.1364<br>0.1197 |       |
| CR            | 0.7967           | 0.4823           | 0.1492           | 0.1567           | 0.1206           |       |
| CI            | 0.7931           | 0.4815           | 0.1492           | 0.1600           | 0.1218           |       |
| AP<br>AR      | 0.8157<br>0.7989 | 0.5067<br>0.4997 | 0.1673<br>0.1648 | 0.1900<br>0.2100 | 0.1361<br>0.1359 | - 0.8 |
| AI            | 0.7328           | 0.4653           | 0.1513           | 0.1933           | 0.1352           |       |
| PR            | 0.7972           | 0.4829           | 0.1484           | 0.1500           | 0.1205           |       |
| PI<br>RI      | 0.7972<br>0.7616 | 0.4844           | 0.1495<br>0.1442 | 0.1567<br>0.1567 | 0.1218<br>0.1218 |       |
| CAP           | 0.8157           | 0.4999           | 0.1625           | 0.1867           | 0.1218           | - 0.6 |
| CAR           | 0.8155           | 0.5006           | 0.1628           | 0.2033           | 0.1300           |       |
| CAI           | 0.8133           | 0.4993<br>0.4825 | 0.1624<br>0.1491 | 0.1833<br>0.1567 | 0.1312<br>0.1203 |       |
| CPR<br>CPI    | 0.7972           | 0.4823           | 0.1491           | 0.1507           | 0.1203           |       |
| CRI           | 0.7967           | 0.4830           | 0.1496           | 0.1600           | 0.1218           | - 0.4 |
| APR           | 0.8157           | 0.5025           | 0.1626           | 0.2100           | 0.1292           |       |
| API<br>ARI    | 0.8157<br>0.7995 | 0.5008<br>0.4934 | 0.1625<br>0.1597 | 0.1933<br>0.1933 | 0.1305<br>0.1309 |       |
| PRI           | 0.7972           | 0.4841           | 0.1493           | 0.1567           | 0.1217           |       |
| CAPR          | 0.8157           | 0.4971           | 0.1595           | 0.1833           | 0.1264           | - 0.2 |
| CAPI          | 0.8157           | 0.4968           | 0.1598           | 0.1733           | 0.1280           |       |
| CARI<br>CPRI  | 0.8155<br>0.7972 | 0.4968<br>0.4830 | 0.1598<br>0.1493 | 0.1800<br>0.1600 | 0.1284<br>0.1215 |       |
| APRI          | 0.8157           | 0.4976           | 0.1594           | 0.1767           | 0.1278           |       |
| CAPRI         | 0.8157           | 0.4954           | 0.1580           | 0.1733           | 0.1263           | - 0.0 |
| 2018          |                  |                  |                  |                  |                  |       |
|               | Recall           | nDCG             | AP               | P@10             | Bpref            | 10    |
| CA            | 0.8133           | 0.5728           | 0.2767           | 0.3240           | 0.2692           | - 1.0 |
| CP<br>CR      | 0.8019           | 0.5402<br>0.5401 | 0.2363<br>0.2359 | 0.2640<br>0.2700 | 0.2191<br>0.2186 |       |
| CR            | 0.8012           | 0.5381           | 0.2359           | 0.2660           | 0.2188           |       |
| AP            | 0.8194           | 0.5748           | 0.2749           | 0.3220           | 0.2653           |       |
| AR            | 0.8108           | 0.5703           | 0.2722           | 0.3280           | 0.2640           | - 0.8 |
| AI<br>PR      | 0.7426<br>0.8019 | 0.5346<br>0.5370 | 0.2541<br>0.2309 | 0.3300<br>0.2620 | 0.2618<br>0.2121 |       |
| PI            | 0.8019           | 0.5370           | 0.2337           | 0.2660           | 0.2121           |       |
| RI            | 0.7744           | 0.5233           | 0.2260           | 0.2660           | 0.2165           |       |
| CAP           | 0.8194           | 0.5695           | 0.2664           | 0.3220           | 0.2507           | - 0.6 |
| CAR<br>CAI    | 0.8194<br>0.8166 | 0.5697<br>0.5680 | 0.2663<br>0.2669 | 0.3280<br>0.3240 | 0.2498<br>0.2541 |       |
| CPR           | 0.8019           | 0.5398           | 0.2346           | 0.2700           | 0.2168           |       |
| CPI           | 0.8019           | 0.5398           | 0.2360           | 0.2660           | 0.2210           |       |
| CRI<br>APR    | 0.8012<br>0.8194 | 0.5394<br>0.5677 | 0.2357<br>0.2625 | 0.2660<br>0.3240 | 0.2210<br>0.2449 | - 0.4 |
| APR           | 0.8194           | 0.5680           | 0.2641           | 0.3240           | 0.2502           |       |
| ARI           | 0.8108           | 0.5631           | 0.2612           | 0.3220           | 0.2492           |       |
| PRI           | 0.8019           | 0.5375           | 0.2324           | 0.2660           | 0.2170           |       |
| CAPR<br>CAPI  | 0.8194<br>0.8194 | 0.5656<br>0.5651 | 0.2592<br>0.2601 | 0.3260<br>0.3060 | 0.2400<br>0.2447 | - 0.2 |
| CARI          | 0.8194           | 0.5651           | 0.2599           | 0.3080           | 0.2446           |       |
| CPRI          | 0.8019           | 0.5391           | 0.2344           | 0.2660           | 0.2187           |       |
| APRI<br>CAPRI | 0.8194<br>0.8194 | 0.5634<br>0.5619 | 0.2570<br>0.2549 | 0.3020<br>0.3000 | 0.2409<br>0.2377 |       |
| CAPRI         | 0.0194           | 0.5019           | 0.2549           | 0.3000           | 0.2377           | - 0.0 |
|               | Recall           | nDCG             | 2019<br>AP       | P@10             | Bpref            |       |
| CA            | 0.8882           | 0.5939           | 0.2766           | 0.3225           | 0.2315           | 1.0   |
| CA<br>CP      | 0.8849           | 0.5780           | 0.2766           | 0.3225           | 0.2313           |       |
| CR            | 0.8806           | 0.5756           | 0.2601           | 0.2575           | 0.2130           |       |
| CI            | 0.8620           | 0.5607           | 0.2489           | 0.2225           | 0.2052           |       |
| AP<br>AR      | 0.9148           | 0.6104<br>0.6023 | 0.2856<br>0.2803 | 0.3175<br>0.3175 | 0.2333<br>0.2322 | - 0.8 |
| AI            | 0.8141           | 0.5523           | 0.2481           | 0.3075           | 0.2213           |       |
| PR            | 0.8849           | 0.5784           | 0.2613           | 0.2600           | 0.2139           |       |
| PI<br>RI      | 0.8849<br>0.8438 | 0.5731<br>0.5526 | 0.2559<br>0.2437 | 0.2300<br>0.2300 | 0.2065<br>0.2041 |       |
| CAP           | 0.8438           | 0.6043           | 0.2437           | 0.2300           | 0.2041           | - 0.6 |
| CAR           | 0.9124           | 0.6031           | 0.2787           | 0.3175           | 0.2245           |       |
| CAI           | 0.9026           | 0.5944           | 0.2712           | 0.2950           | 0.2189           |       |
| CPR<br>CPI    | 0.8849<br>0.8849 | 0.5778<br>0.5740 | 0.2615<br>0.2578 | 0.2575<br>0.2225 | 0.2138<br>0.2081 |       |
| CRI           | 0.8807           | 0.5719           | 0.2564           | 0.2225           | 0.2070           | - 0.4 |
| APR           | 0.9148           | 0.6053           | 0.2793           | 0.3150           | 0.2248           |       |
| API           | 0.9148           | 0.6025           | 0.2756           | 0.3075           | 0.2196           |       |
| ARI<br>PRI    | 0.9004<br>0.8849 | 0.5945<br>0.5737 | 0.2705<br>0.2572 | 0.3050<br>0.2300 | 0.2184<br>0.2079 |       |
| CAPR          | 0.9148           | 0.6016           | 0.2765           | 0.2925           | 0.2218           | - 0.2 |
| CAPI          | 0.9148           | 0.5988           | 0.2735           | 0.2825           | 0.2176           | 0.2   |
| CARI          | 0.9124           | 0.5975           | 0.2726           | 0.2825           | 0.2170           |       |
| CPRI<br>APRI  | 0.8849<br>0.9148 | 0.5744<br>0.6000 | 0.2582<br>0.2736 | 0.2225<br>0.2900 | 0.2086<br>0.2175 |       |
| CAPRI         | 0.9148           | 0.5972           | 0.2723           | 0.2625           | 0.2173           | 2 2   |
|               |                  |                  |                  |                  |                  | - 0.0 |