

## RESUMEN

El indicador de impacto de revistas científicas más empleado por la comunidad científica es el Impact Factor (IF). Este IF fue desarrollado por el Institute of Scientific Information (ISI) y se publica cada año en el Journal Citation Reports (JCR) por Thomson Reuters.

Como principal inconveniente, el IF no es comparable entre campos científicos diferentes debido, principalmente, a los distintos hábitos de publicación y citación.

En este trabajo se presenta una descomposición del IF en términos de sus variables más significativas. Además, se muestra una aplicación empírica comparando todas las categorías tanto de la edición de ciencias como de la edición de ciencias sociales del JCR.

## Introducción

### Indicadores de Impacto para revistas

- El Impact Factor (IF) publicado en el Journal Citation Reports (JCR) por Thomson Reuters (Garfield, 1972):

$$IF_i^t = \frac{n_i^t}{A_{i-1}^t + A_{i-2}^t}$$

- Items citables: articles, proceedings papers, reviews, letters
- Ventana de citación: 2 años

- JCR (2007): Five-year Impact Factor, Eigenfactor Score, Article Influence Score

### Recuento fraccional

- Una cita procedente de una publicación con n referencias cuenta como 1/n (recuento fraccional) en lugar de 1 (recuento entero)
- Audience Factor (Zitt & Small, 2008): cociente entre la cita fraccional media de cada revista y la cita fraccional media de todas las revistas del Science Citation Index.
- Source Normalized Impact per Paper (SNIP) (Leydesdorff & Opthof, 2010; Moed, 2010): similar para Scopus con ventana de citación de tres años y nueva definición de item citable.
- Scimago Journal Ranking (SJR) (González-Pereira et al., 2011): tiene en cuenta el prestigio de la revista citación en la base de datos Scopus.

- En Ciencias Sociales y Humanidades el principal canal de comunicación son los libros (Kyvik, 2003)
- En Ciencias de la Computación el principal canal de comunicación son los proceedings (Moed & Visser, 2007)

## Fuentes de variabilidad

Número de artículos en el campo F el año t:

$$A_t^F$$

Número de referencias en el campo F el año t:

$$R_t^F$$

Número de referencias a artículos JCR en el campo F el año t:

$$J_t^F$$

Número de referencias a artículos JCR dentro de la ventana de citación recibidas por el campo F el año t:

$$N_t^{F,cited}$$

Número de referencias a artículos JCR dentro de la ventana de citación realizadas por el campo F el año t:

$$N_t^{F,citing}$$

- Índice de crecimiento del campo:

$$a_t^F = \frac{A_t^F}{A_{t-1}^F + A_{t-2}^F}$$

- El campo crece cuando  $a_t^F > 0.5$

- Referencias promedio:

$$r_t^F = \frac{R_t^F}{A_t^F}$$

- Proporción de items citables:

$$p_t^F = \frac{J_t^F}{R_t^F}$$

- excluye working papers, proceedings, libros y revistas no indexadas en JCR

- Ratio de items citables a la ventana de citación:  $w_t^F = \frac{N_t^{F,citing}}{J_t^F}$

- Proporción entre citados y citantes:

$$b_t^F = \frac{N_t^{F,cited}}{N_t^{F,citing}}$$

- Si  $b_t^F > 1$  las citas recibidas en el campo son mayores que las citas generadas

## Factor de impacto agregado

### Factor de impacto agregado

Considerando todas las revistas en la categoría como una meta-revista (Relative Impact Factor; Egghe & Rousseau, 2002)

$$AIF_i^F = \frac{\sum_{t \in F} n_i^t}{A_{i-1}^F + A_{i-2}^F} = \frac{N_i^F}{A_{i-1}^F + A_{i-2}^F}$$

$$AIF_i^F = \frac{\sum_{t \in F} n_i^t}{A_{i-1}^F + A_{i-2}^F} = \sum_{t \in F} \frac{n_i^t}{A_{i-1}^F + A_{i-2}^F} = \sum_{t \in F} \frac{A_{i-1}^t + A_{i-2}^t}{A_{i-1}^F + A_{i-2}^F} IF_i^t = \sum_{t \in F} f_i^t IF_i^t$$

$$\sum_{t \in F} f_i^t = 1$$

### Resultado 1

El factor de impacto agregado puede descomponerse de la siguiente forma:

$$AIF_i^F = a_i^F \cdot r_i^F \cdot p_i^F \cdot w_i^F \cdot b_i^F$$

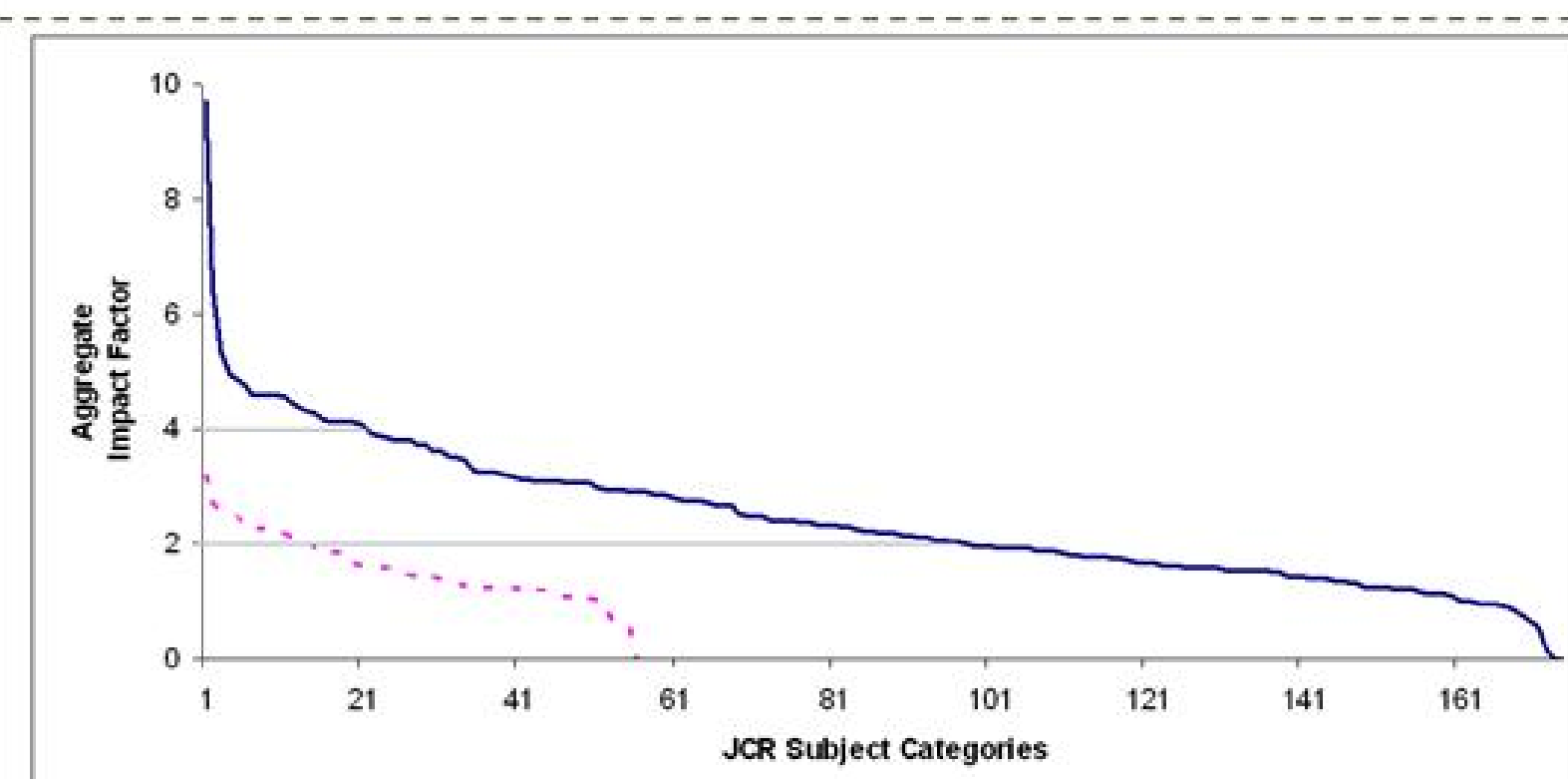


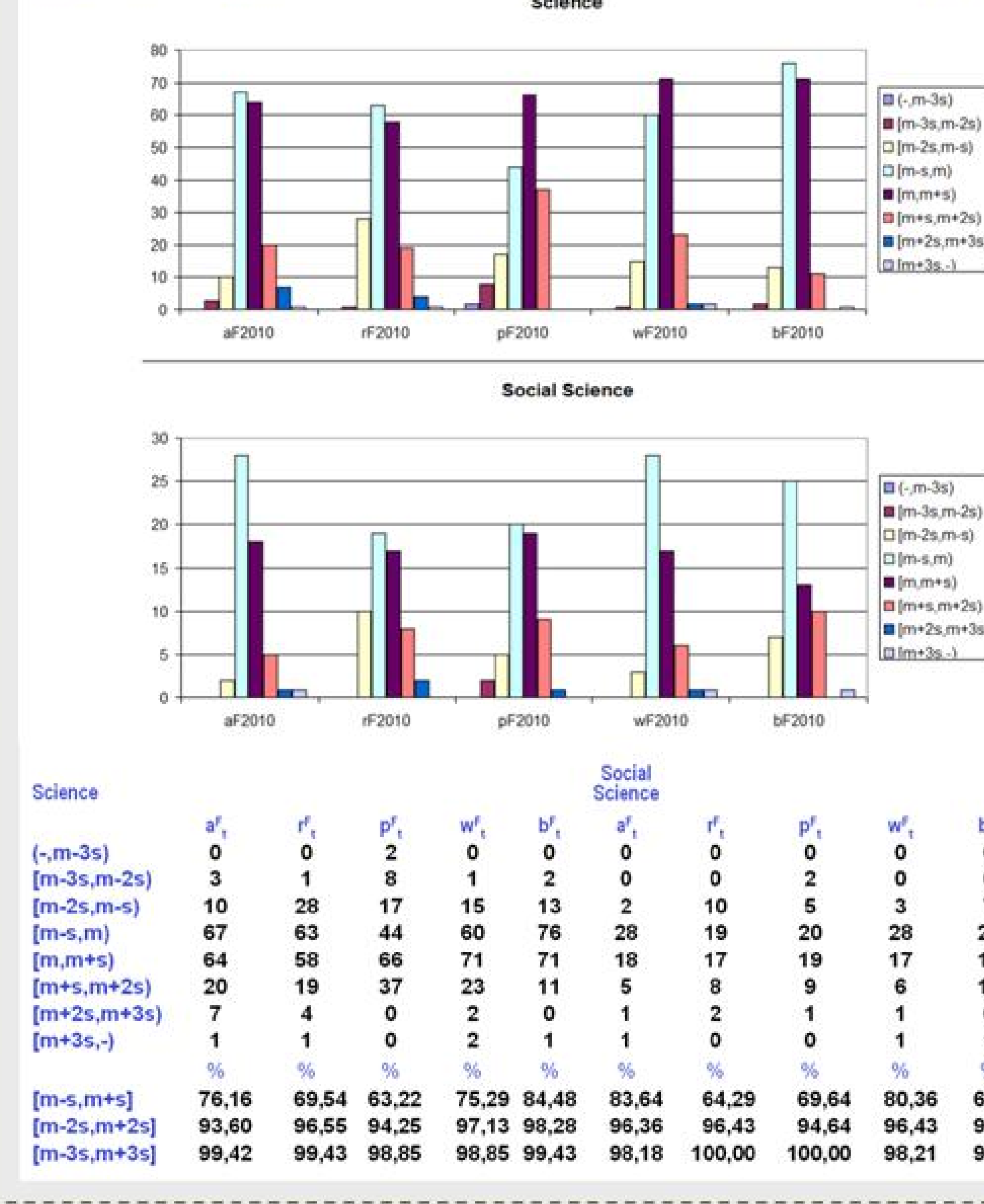
Figura 1: Factor de impacto agregado

## Aplicación empírica

Tabla 2: Matriz de correlaciones (t=2010)

| Science Subject Categories         |         |         |         |                 |                  |         |         |         |         |         |           |
|------------------------------------|---------|---------|---------|-----------------|------------------|---------|---------|---------|---------|---------|-----------|
| $ F $                              | $A_t^F$ | $R_t^F$ | $J_t^F$ | $N_t^{F,cited}$ | $N_t^{F,citing}$ | $a_t^F$ | $r_t^F$ | $p_t^F$ | $w_t^F$ | $b_t^F$ | $AIF_i^F$ |
| $ F $                              | 1       | 0.81    | 0.79    | 0.75            | 0.67             | 0.72    | $a_t^F$ | 1       | 0.02    | 0.03    | 0.08      |
| $R_t^F$                            | 1       | 0.94    | 0.93    | 0.90            | 0.93             | 0.93    | $r_t^F$ | 1       | 0.40    | -0.21   | 0.14      |
| $J_t^F$                            | 1       | 1.00    | 0.95    | 0.99            | 0.99             | 0.99    | $p_t^F$ | 1       | -0.20   | 0.55    | 0.65      |
| $N_t^{F,cited}$                    | 1       | 0.96    | 0.99    | 1               | 0.98             | 0.98    | $w_t^F$ | 1       | -0.03   | 0.24    | 0.88      |
| $N_t^{F,citing}$                   | 1       | 0.98    | 1       | 1               | 1                | 1       | $b_t^F$ | 1       | 0.76    | 1       | 1         |
| PCA Eigenvalues                    |         |         |         |                 |                  |         |         |         |         |         |           |
| 0.2060                             |         |         |         |                 |                  |         |         |         |         |         |           |
| [0.0731 0.3655 0.2093 0.1460]      |         |         |         |                 |                  |         |         |         |         |         |           |
| Social Science Subject Categories  |         |         |         |                 |                  |         |         |         |         |         |           |
| $ F $                              | $A_t^F$ | $R_t^F$ | $J_t^F$ | $N_t^{F,cited}$ | $N_t^{F,citing}$ | $a_t^F$ | $r_t^F$ | $p_t^F$ | $w_t^F$ | $b_t^F$ | $AIF_i^F$ |
| $ F $                              | 1       | 0.90    | 0.90    | 0.86            | 0.84             | 0.91    | $a_t^F$ | 1       | 0.29    | -0.05   | -0.26     |
| $R_t^F$                            | 1       | 0.96    | 0.92    | 0.87            | 0.95             | 0.94    | $r_t^F$ | 1       | -0.15   | -0.11   | -0.29     |
| $J_t^F$                            | 1       | 0.97    | 0.89    | 0.95            | 0.93             | 0.93    | $p_t^F$ | 1       | -0.71   | 0.88    | 0.85      |
| $N_t^{F,cited}$                    | 1       | 0.95    | 0.91    | 1               | 0.97             | 0.97    | $w_t^F$ | 1       | -0.68   | -0.48   | 1         |
| $N_t^{F,citing}$                   | 1       | 0.91    | 0.87    | 1               | 1                | 1       | $b_t^F$ | 1       | 0.78    | 1       | 1         |
| PCA Eigenvalues                    |         |         |         |                 |                  |         |         |         |         |         |           |
| 0.1173 0.0220 0.0478 0.5779 0.2350 |         |         |         |                 |                  |         |         |         |         |         |           |

Figura 2: Histograma de frecuencias de la distribución Normal N(m;s)



| Code | JCR Subject Category (F)                         | # Journals | Citable Items (Articles & Reviews) |             | References |                 | Citations to JCR citable items in the target window |         | AIF Components |             | Aggregate Impact Factor |             |       |      |       |       |       |       |
|------|--|------------|------------------------------------|-------------|------------|-----------------|---|---------|----------------|-------------|-------------------------|-------------|-------|------|-------|-------|-------|-------|
|      |  |            | $A_t^F$                            | $A_{t-1}^F$ | $R_t^F$    | $N_t^{F,cited}$ | $N_t^{F,citing}$                                    | $P_t^F$ | $P_{t-1}^F$    | $P_{t-2}^F$ |                         | $P_{t-3}^F$ |       |      |       |       |       |       |
| S1   | ACOUSTICS  | 29         | 3394                               | 3723        | 3761       | 2001            | 23539   | 1150    | 1252           | 131         | 2914                    | 0.79        | 0.15  | 0.90 | 1.553 |       |       |       |
| S2   | AGRICULTURAL ECONOMICS & POLICY                  | 14         | 431                                | 549         | 439        | 10711           | 7172  | 1843    | 1975           | 2395        | 48                      | 38.84       | 0.39  | 0.22 | 0.45  | 0.81  |       |       |
| S3   | AGRICULTURAL ENGINEERING                         | 12         | 2368                               | 2013        | 2172       | 65133           | 17892   | 8237    | 13332          | 1332        | 1381                    | 20.92       | 29.90 | 0.70 | 0.20  | 1.313 |       |       |
| S4   | AGRICULTURE, DAIRY & ANIMAL SCIENCE              | 55         | 6641                               | 5922        | 5121       | 165027          | 59124   | 1324    | 1515           | 2161        | 2618                    | 17.15       | 22.65 | 0.71 | 0.17  | 1.474 |       |       |
| S5   | AGRICULTURE, MULTIDISCIPLINARY                   | 25         | 2859                               | 4352        | 4887       | 149715          | 52389   | 193124  | 15023          | 7383        | 42.86                   | 37.13       | 0.71  | 0.17 | 1.403 |       |       |       |
| S6   | AGRONOMY   | 74         | 6616                               | 5673        | 5100       | 191377          | 57962   | 24849   | 19111          | 26377       | 0.62                    | 34.74       | 0.77  | 0.14 | 0.73  | 1.775 |       |       |
| S7   | ALLERGY  | 21         | 2136                               | 2145        | 2068       | 82272           | 11896   | 24469   | 1161           | 1460        | 1.42                    | 24.60       | 0.76  | 0.14 | 0.73  | 1.474 |       |       |
| S8   | ANATOMY & MORPHOLOGY                             | 139        | 1845                               | 1508        | 1336       | 71657           | 14239   | 53796   | 601            | 9494        | 0.61                    | 44.83       | 0.83  | 0.13 | 0.13  | 0.76  | 1.976 |       |
| S9   | ANDROLOGY  | 5          | 367                                | 330         | 331        | 46997           | 2316  | 16413   | 1571           | 2609        | 0.56                    | 44.81       | 0.86  | 0.15 | 0.15  | 0.73  | 1.277 |       |
| S10  | ANESTHESIOLOGY                                   | 26         | 3869                               | 3542        | 3419       | 119992          | 36658   | 16548   | 3583           | 4540        | 0.56                    | 34.40       | 0.82  | 0.15 | 0.15  | 0.73  | 1.277 |       |
| S11  | ASTRONOMY & ASTROPHYSICS                         | 54         | 13324                              | 14562       | 13865      | 387844          | 166112  | 733990  | 131008         | 14273       | 0.47                    | 56.59       | 0.78  | 0.34 | 0.40  | 0.92  | 1.581 |       |
| S12  | AUTOMATION & CONTROL SYSTEMS                     | 60         | 6659                               | 6379        | 5104       | 119510          | 51819   | 13958   | 2862           | 58          | 27.53                   | 20.70       | 0.40  | 0.74 | 0.24  | 0.44  | 1.582 |       |
| S13  | BEHAVIORAL SCIENCES                              | 48         | 5410                               | 5354        | 5234       | 27143           | 35334   | 13247   | 1914           | 4628        | 40.24                   | 37.13       | 0.71  | 0.17 | 0.17  | 0.17  | 1.403 |       |
| S14  | BIOCHEMICAL RESEARCH METHODS                     | 71         | 14334                              | 13305       | 12560      | 497392          | 19031   | 57661   | 10668          | 1395        | 38.37                   | 38.39       | 0.22  | 0.22 | 0.22  | 0.22  | 1.822 |       |
| S15  | BIOCHEMISTRY & MOLECULAR BIOLOGY                 | 286        | 50149                              | 47855       | 44850      | 2360833         | 188716  | 248954  | 42847          | 41819       | 0.52                    | 49.62       | 0.92  | 0.18 | 0.18  | 0.45  | 1.403 |       |
| S16  | BIOLOGICAL CONSERVATION                          | 33         | 2899                               | 2354        | 2245       | 123060          | 46016   | 1161    | 1460           | 1.42        | 24.60                   | 0.76        | 0.14  | 0.73 | 0.14  | 0.73  | 1.474 |       |
| S17  | BIOLOGY  | 85         | 15511                              | 11427       | 9471       | 655352          | 91973   | 74532   | 7172           | 1213        | 88.38                   | 48.06       | 0.88  | 0.18 | 0.18  | 0.18  | 0.44  | 1.414 |
| S18  | BIOPHYSICS                                       | 73         | 11865                              | 11519       | 11622      | 449270          | 46649   | 14518   | 768            | 8686        | 0.51                    | 43.91       | 0.91  | 0.37 | 0.37  | 0.37  | 0.37  | 1.582 |
| S19  | BIOCHEMISTRY & APPLIED MICROBIOLOGY              | 160        | 24136                              | 22833       | 20233      | 82362           | 123891  | 13247   | 1515           | 2161        | 2618                    | 17.15       | 22.65 | 0.71 | 0.17  | 0.17  | 0.17  | 1.403 |
| S20  | CARDIAC & CARDIOVASCULAR SYSTEMS                 | 114        | 15925                              | 13731       | 13352      | 535424          | 50180   | 664904  | 115440         | 11024       | 0.39                    | 37.82       | 0.20  | 1.03 | 1.03  | 1.03  | 1.03  | 1.474 |
| S21  | CELL & TISSUE ENGINEERING                        | 12         | 1683                               | 1254        | 1254       | 75741           | 6204  | 4948    | 18             | 124         | 75.66                   | 0.92        | 0.23  | 1.04 | 1.04  | 1.04  | 1.04  | 1.474 |
| S22  | CELL BIOLOGY                                     | 127        | 22852                              | 20662       | 21207      | 1165393         | 86658   | 121693  | 3031           | 2182        | 0.47                    | 56.59       | 0.78  | 0.34 | 0.40  | 0.92  | 1.581 |       |
| S23  | CHEMISTRY, ANALYTICAL                            | 71         | 17669                              | 17667       | 16923      | 546495          | 79320   | 62801   | 10500          | 11954       | 0.52                    | 34.95       | 0.87  | 0.22 | 0.84  | 0.84  | 0.84  | 1.582 |
| S24  | CHEMISTRY, APPLIED                               | 70         | 11663                              | 11130       | 11017      | 371369          | 53770   | 71110   | 4972           | 4452        | 0.52                    | 34.82       | 0.86  | 0.20 | 0.90  | 0.90  | 0.90  | 1.267 |
| S25  | CHEMISTRY, INORGANIC & NUCLEAR                   | 43         | 12490                              | 12095       | 11846      | 491461          | 41226   | 53669   | 5899           | 5899        | 0.51                    | 43.92       | 0.91  | 0.37 | 0.37  | 0.37  | 0.37  | 1.582 |
| S26  | CHEMISTRY, MEDICAL                               | 54         | 12244                              | 10021       | 9926       | 431815          | 64482   | 16337   | 574            | 8870        | 0.40                    | 42.17       | 0.98  | 0.35 | 0.35  | 0.35  | 0.35  | 1.796 |
| S27  | CHEMISTRY, MULTIDISCIPLINARY                     | 144        | 41982                              | 37439       | 33722      | 134444          | 150284  | 164948  | 32483          | 3137        | 0.39                    | 40.37       | 0.91  | 0.21 | 0.21  | 0.21  | 0.21  | 1.403 |
| S28  | CHEMISTRY, PHYSICAL                              | 56         | 18976                              | 18805       | 18241      | 61843           | 85098   | 13403   | 13403          | 13403       | 0.51                    | 43.92       | 0.91  | 0.37 | 0.37  | 0.37  | 0.37  | 1.582 |
| S29  | CHEMISTRY, PHYSICAL                              | 127        | 44757                              | 41000       | 37833      | 1643507         | 127254  | 178821  | 28509          | 30909       | 0.57                    | 39.72       | 0.93  | 0.29 | 0.29  | 0.29  | 0.29  | 1.616 |
| S30  | CLINICAL NEUROLOGY                               | 188        | 22826                              | 21090       | 19782      | 77990           | 108423  | 110003  | 13247          | 13194       | 0.56                    | 37.38       | 0.88  | 0.17 | 0.17  | 0.17  | 0.17  | 1.238 |
| S31  | COMPUTER SCIENCE, ARTIFICIAL INTELLIGENCE        | 108        | 8492                               | 8338        | 8095       | 187174          | 9793  | 23273   | 23273          | 23273       | 0.56                    | 37.38       | 0.88  | 0.17 | 0.17  | 0.17  | 0.17  | 1.238 |
| S32  | COMPUTER SCIENCE, CYBERNETICS                    | 179        | 1687                               | 1607        | 1593       | 24119           | 17519   | 4108    | 248            | 343         | 38.34                   | 0.58        | 0.18  | 0.65 | 0.65  | 0.65  | 0.65  | 1.395 |
| S33  | COMPUTER SCIENCE, HARDWARE & ARCHITECTURE        | 108        | 8492                               | 8338        | 8095       | 187174          | 9793  | 23273   | 23273          | 23273       | 0.56                    | 37.38       | 0.88  | 0.17 | 0.17  | 0.17  | 0.17  | 1.238 |
| S34  | COMPUTER SCIENCE, INFORMATION SYSTEMS            | 126        | 8208                               | 7685        | 7535       | 155262          | 131280  | 16108   | 12437          | 131         | 26.30                   | 0.57        | 0.17  | 0.61 | 0.61  | 0.61  | 0.61  | 1.403 |
| S35  | COMPUTER SCIENCE, INTERDISCIPLINARY APPLICATIONS | 97         | 9626                               | 9276        | 9008       | 227895          | 94268   | 32263   | 3070           | 4310        | 0.52                    | 32.46       | 0.71  | 0.18 | 0.18  | 0.18  | 0.18  | 1.652 |
| S36  | COMPUTER SCIENCE, SOFTWARE ENGINEERING           | 108        | 8492                               | 8338        | 8095       | 187174          | 9793  | 23273   | 23273          | 23273       | 0.56                    | 37.38       | 0.88  | 0.17 | 0.17  | 0.17  | 0.17  | 1.238 |
| S37  | CONSTRUCTION & BUILDING TECHNOLOGY               | 73         | 3871                               | 3662        | 3610       | 17319           | 37899   | 7476    | 1476           | 1476        | 0.49                    | 24.49       | 0.60  | 0.20 | 0.20  | 0.20  | 0.20  | 1.621 |
| S38  | CRYSTALLOGRAPHY                                  | 22         | 10153                              | 10241       | 9748       | 21290           | 18461   | 16708   | 16708          | 16708       | 0.52                    | 34.82       | 0.92  | 0.20 | 0.20  | 0.20  | 0.20  | 1.611 |
| S39  | CRYSTALLOGRAPHY                                  | 22         | 10153                              | 10241       | 9748       | 21290           | 18461   | 16708   | 16708          | 16708       | 0.52                    | 34.82       | 0.92  | 0.20 | 0.20  | 0.20  | 0.20  | 1.611 |
| S40  | DEVELOPMENTAL BIOLOGY                            | 38         | 4022                               | 3894        | 4095       | 217359          | 18075   | 28814   | 36751          | 36751       | 0.50                    | 32.74       | 0.92  | 0.17 | 0.17  | 0.17  | 0.17  | 1.480 |
| S41  | ECOLOGOLOGY                                      | 129        | 14462                              | 14289       | 13153      | 646059          | 130447  | 96006   | 4819           | 9679        | 0.53                    | 54.00       | 0.81  | 0.15 | 0.15  | 0.15  | 0.15  | 0.804 |
| S42  | ENVIRONMENTAL SCIENTIFIC DISCIPLINES             | 15         | 2214                               | 2018        | 1918       | 72082           | 9124  | 2114    | 58             | 618         | 0.52                    | 34.82       | 0.92  | 0.20 | 0.20  | 0.20  | 0.20  | 1.611 |
| S43  | ELECTROCHEMISTRY                                 | 26         | 10539                              | 8160        | 7490       | 302448          | 33527   | 34975   | 5638           | 4467        | 0.67                    | 31.88       | 0.90  | 0.21 | 0.21  | 0.21  | 0.21  | 1.615 |
| S44  | ENERGY MEDICINE                                  | 25         | 2739                               | 2538        | 2436       | 68446           | 14360   | 8340    | 11669          | 0.65        | 30.25                   | 0.81        | 0.17  | 0.17 | 0.17  | 0.17  | 0.17  | 1.212 |
| S45  | ENVIRONMENTAL SCIENCE & TECHNOLOGY               | 110        | 14495                              | 13371       | 13022      | 613660          | 67133   | 67133   | 67133          | 67133       | 0.52                    | 34.82       | 0.92  | 0.20 | 0.20  | 0.20  | 0.20  | 1.611 |
| S46  | ENERGY & FUELS                                   | 78         | 14432                              | 12127       | 10433      | 336424          | 101116  | 47000   | 67002          | 4049        | 0.64                    | 30.31       | 0.73  | 0.25 | 0.25  | 0.25  | 0.25  | 1.213 |
| S47  | ENGINEERING, AEROSPACE                           | 27         | 2167                               | 2048        | 2008       | 30755           | 21167   | 5121    | 313            | 8620        | 0.43                    | 23.96       | 0.59  | 0.18 | 0.18  | 0.18  | 0.18  | 0.628 |
| S48  | ENGINEERING, BIOMEDICAL                          | 69         | 2919                               | 8028        | 8471       | 106411          | 21623   | 21623   | 21623          | 21623       | 0.52                    | 34.82       | 0.92  | 0.20 | 0.20  | 0.20  | 0.20  | 1.611 |
| S49  | ENGINEERING, CHEMICAL                            | 134        | 22666                              | 20672       | 18826      | 530601          | 116870  | 63711   | 76258          | 6697        | 0.56                    | 29.02       | 0.83  | 0.18 | 0.18  | 0.18  | 0.18  | 0.628 |
| S50  | ENGINEERING, CIVIL                               | 115        | 10953                              | 10551       | 8873       | 199452          | 76015   | 29588   | 30628          | 30628       | 0.53                    | 27.07       | 0.26  | 0.20 | 0.20  | 0.20  | 0.20  | 0.788 |
| S51  | ENGINEERING, ELECTRICAL & ELECTRONIC             | 147        | 40777                              | 38841       | 34767      | 636769          | 247609  | 127049  | 127049         | 127049      | 0.52                    | 34.82       | 0.92  | 0.20 | 0.20  | 0.20  | 0.20  | 1.611 |
| S52  | ENGINEERING, ENVIRONMENTAL                       | 45         | 9335                               | 8902        | 7603       | 259444          | 67718   | 71262   | 5200           | 6064        | 0.58                    | 35.44       | 0.49  | 0.23 | 0.23  | 0.23  | 0.23  | 1.328 |
| S53  | ENGINEERING, ENVIRONMENTAL                       | 168        | 11867                              | 11867       | 11867      | 11867           | 11867   | 11867   | 11867          | 11867       | 0.52                    | 34.82       | 0.92  | 0.20 | 0.20  | 0.20  | 0.20  | 1.611 |
| S54  | ENGINEERING, GEOLOGICAL                          | 30         | 1869                               | 1787        | 1612       | 50255           | 27045   | 35045   | 3849           | 5035        | 0.52                    | 30.65       | 0.52  | 0.17 | 0.17  | 0.17  | 0.17  | 1.132 |
| S55  | ENGINEERING, INDUSTRIAL                          | 37         | 3153                               | 2952        | 2705       | 74614           | 31532   | 10596   | 10596          | 10596       | 0.52                    | 34.82       | 0.92  | 0.20 | 0.20  | 0.20  | 0.20  | 1.611 |
| S56  | ENGINEERING, MANUFACTURING                       | 37         | 3657                               | 4372        | 4304       | 76819           | 31160   | 107699  | 11333          | 12750       | 0.46                    | 27.39       | 0.71  | 0.17 | 0.17  | 0.17  | 0.17  | 0.889 |
| S57  | ENGINEERING, MARINE                              | 11         | 440                                | 404         | 429        | 2376            | 3757  | 6133    | 214            | 776         | 0.43                    | 13.94       | 0.39  | 0.38 | 0.38  | 0.38  | 0.38  | 0.627 |
| S58  | ENGINEERING, MECHANICAL                          | 122        | 12185                              | 12185       | 12185      | 12185           | 12185   | 12185   | 12185          | 12185       | 0.52                    | 34.82       | 0.92  | 0.20 | 0.20  | 0.20  | 0.20  | 1.611 |
| S59  | ENGINEERING, MECHANICAL                          | 122        | 12185                              | 12185       | 12185      | 12185           | 12185   | 12185   | 12185          | 12185       | 0.52                    | 34.82       | 0.92  | 0.20 | 0.20  | 0.20  | 0.20  | 1.611 |
| S60  | ENGINEERING, MULTIDISCIPLINARY                   | 87         | 951                                | 8216        | 716        | 12366           | 675   | 196242  | 14736          | 3716        | 0.52                    | 25.06       | 0.67  | 0.18 | 0.18  | 0.18  | 0.18  | 0.627 |
| S61  | ENGINEERING, OCEANOGRAPHY                        | 15         | 862                                | 823         | 868        | 12360           | 7078  | 20338   | 1785           | 2066        | 0.52                    | 34.82       | 0.92  | 0.20 | 0.20  | 0.20  | 0.20  | 1.611 |
| S62  | ENGINEERING, OCEANOGRAPHY                        | 15         | 862                                | 823         | 868        | 12360           | 7078  | 20338   | 1785           | 2066        | 0.52                    | 34.82       | 0.92  | 0.20 | 0.20  | 0.20  | 0.20  | 1.611 |
| S63  | ENVIRONMENTAL SCIENCE & TECHNOLOGY               | 110        | 14495                              | 13371       | 13022      | 613660          | 67133   | 67133   | 67133          | 67133       | 0.52                    | 34.82       | 0.92  | 0.20 | 0.20  | 0.20  | 0.20  | 1.611 |
| S64  | ENTOMOLOGY                                       | 83         | 5217                               | 4988        | 5045       | 186916          | 32457   | 13373   | 1418           | 21061       | 0.55                    | 38.87       | 0.13  | 0.67 | 0.67  | 0.67  | 0.67  | 1.098 |
| S65  | ENVIRONMENTAL SCIENCES                           | 192        | 2072                               | 2028        | 2484       | 84875           | 21924   | 115883  | 133091         | 16910       | 0.51                    | 41.00       | 0.78  | 0.20 | 0.20  | 0.20  | 0.20  | 0.787 |
| S66  | ENVIRONMENTAL BIOLOGY                            | 45         | 5204                               | 5176        | 4628       | 268481          | 47565   | 18464   | 18464          | 18464       | 0.52                    | 34.82       | 0.92  | 0.20 | 0.20  | 0.20  | 0.20  | 1.611 |
| S67  | FISHERIES  | 88         | 5517                               | 4988        | 5045       | 186916          | 32457   | 13373   | 1418           | 21061       | 0.55                    | 38.87       | 0.13  | 0.67 | 0.67  | 0.67  | 0.67  | 1.098 |
| S68  | FOOD SCIENCE & TECHNOLOGY                        | 126        | 11616                              | 13086       | 1486       | 482320          | 211228  | 640517  | 58996          | 16602       | 0.57                    | 34.82       | 0.92  | 0.20 | 0.20  | 0.20  | 0.20  | 1.611 |