

# Alternative metrics approach to Croatian OA journals

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# Importance of the evaluation

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- whom to hire?
  - whom to give money for the research?
  - which journal is successful?
  - are researchers communicating their results?
  - which channel of scholarly communication are using?
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- assessment – must be **now** – based on the simple numbers
  - assessing container (e.g. journal), not the content
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# Academic career policies in Croatia

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“papers must be published in journals with JIF above average for the specific subject category”

“at least two-thirds of the papers must be published in the journals listed in SCIE”

“paper is rated regarding ratio of the JIF and median of the subject category, and the minimal value must be 0.5

“the value of the qualitative criteria  $Q$  is calculated as a sum of the ratios of JIF and median JIF of the subject category, multiplied by the factor  $F_d$  of the candidate”

“Example: *Journal of Engineering Mechanics* in 2011 has JIF 0.99, subject category is *Engineering – Mechanical* with median JIF 0.743 ...”

“in the A1 category are the papers published in journals with JIF in Q1, Q2, i Q3 of the subject category ...in the A2 category are papers from the journals in Q4...”

“in the A1 category are the papers published in journals indexed by *Web of Knowledge*...if the JIF falls in the first 50% of the subject category...then the paper is counted as two papers”

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# Criteria

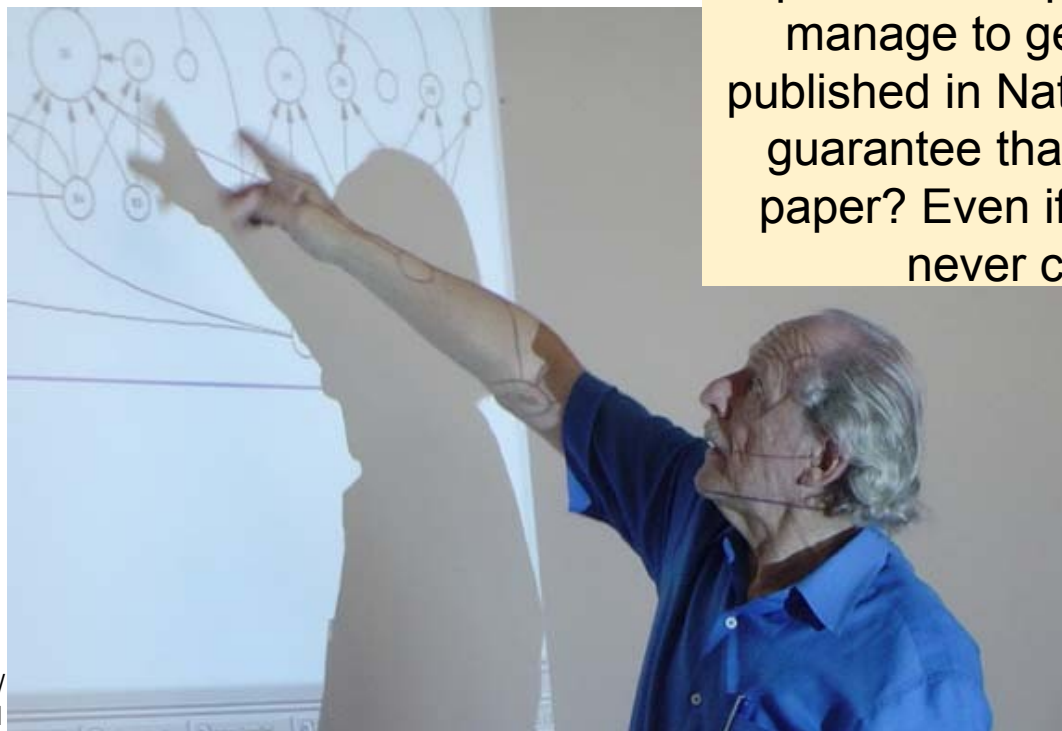
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- **JIF** and **number of papers** published in the journals indexed by *Web of Science* and/or *Scopus* database
  - publications ranked in **categories**, depending on journal, index, publisher...(A1, A2...)
  - **complex** formulas (lack of understanding?)
  - **wrong metric** indicators are used to measure academic achievement at individual, project (grant) and institutional level
  - **collaboration** in some disciplines is suppressed by limited number of authors
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“**JIF is not created** for all the purposes that some people want to use them for. A lot of people who are using JIF are doing it for advertising purposes.”

“It is crucial to know how citations are **connected**, how they are **related**.”

[http://www.garfield.library.upenn.edu/papers/medicalwritingv8\(1\)1999.html](http://www.garfield.library.upenn.edu/papers/medicalwritingv8(1)1999.html)



“The *real* problem is when you start using JIF as the **substitute for citation analysis** of individuals. I have always said that you should not use JIF to evaluate a person or department. If I manage to get my paper published in *Nature*, does that guarantee that it is a great paper? Even if the paper is never cited?”

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Eugene Garfield at Libraries in Digital Age, island Mljet, Croatia, 2004

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# Rise of metrics

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- academic career
  - research project assessment
  - institution ranking
  - funding decisions
  - ...
  - new situation has drawn significant criticism
    - research integrity in jeopardy (retractions)
    - “salami-slicing” or redundant publishing
    - unequal treatment of researchers from low-cited disciplines
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# Assessment:

1. Levatić, Jurica; Ćurak, Jasna; Kralj, Marijeta; Šmuc, Tomislav; Osmak, Maja; Supek, Fran.  
**Accurate Models for P-gp Drug Recognition Induced from a Cancer Cell Line Cytotoxicity Screen.** // *Journal of medicinal chemistry*. **56** (2013) , 14; 5691-5708 (članak, znanstveni).   
2. Radivojac, Predrag; ...; Škunca, Nives; Supek, Fran; , Šmuc, Tomislav.  
**A large-scale evaluation of computational protein function prediction** // *Nature methods*. **10** (2013) , 3; 221-227 (članak, znanstveni). 
3. Šimpraga, Miljenko; Šmuc, Tomislav; Matanović, Krešimir; Radin, Lada; Shek-Vugrovečki, Ana; Ljubičić, Iva; Vojta, Aleksandar.  
**Reference intervals for organically raised sheep: Effects of breed, location and season on hematological and biochemical parameters.** // *Small ruminant research*. **112** (2013) , 1/3; 1-6 (članak, znanstveni).  
4. Ester, Katja; Supek, Fran; Majsec, Kristina; Marjanović, Marko; Lembo, David; Donalisio, Manuela; Šmuc, Tomislav; Jarak, Ivana; Karminski-Zamola, Grace; Kralj, Marijeta.  
**Putative mechanisms of antitumor activity of cyano-substituted heteroaryles in HeLa cells.** // *Investigational new drugs*. **30** (2012) , 2; 450-467 (članak, znanstveni).   
5. Čož-Rakovac, Rozelinda; Lisičić, Duje; Šmuc, Tomislav; Topić Popović, Natalija; Strunjak-Perović, Ivančica; Jadan, Margita; Tadić, Zoran; Jug Dujaković, Jurica.  
**Classification Modelling of Physiological Stages in Captive Balkan Whip Snakes Using Blood Biochemistry Parameters.** // *Journal of herpetology*. **45** (2011) , 4; 525-529 (članak, znanstveni).  
6. Smole, Zlatko; Nikolic, Nela; Supek, Fran; Šmuc, Tomislav; Sbalzarini, Ivo; Krisko, Anita.  
**Proteome sequence features carry signatures of the environmental niche of prokaryotes.** // *Bmc evolutionary biology*. **11** (2011) ; 1-26 (članak, znanstveni).   
7. Supek, Fran; Šumanovac Ramljak, Tatjana; Marjanović, Marko; Buljubašić, Maja; Kragol, Goran; Ilić, Nataša; Šmuc, Tomislav; Zahradka, Davor; Mlinarić-Majerski, Kata; Kralj, Marijeta.  
**Could LogP be a principal determinant of biological activity in 18-crown-6 ethers? Synthesis of biologically active adamantane-substituted diaza-crowns.** // *European Journal of Medicinal Chemistry*. **46** (2011) , 8; 3444-3454 (članak, znanstveni).   
8. Budimir, Ana; Šmuc, Tomislav; Weitner, Tin; Batinić-Haberle, Ines; Biruš, Mladen.  
**Thermodynamics and electrochemistry of manganese ortho-tetrakis(N-n-butylpyridinium-2-yl)porphyrin in aqueous solutions.** // *Journal of coordination chemistry*. **63** (2010) , 14/16; 2750-2765 (članak, znanstveni).  
9. Gredičak, Matija; Supek, Fran; Kralj, Marijeta; Majer, Zsuzsa; Hollosi, Miklos; Šmuc, Tomislav; Mlinarić-Majerski, Kata; Horvat, Štefica.  
**Computational structure-activity study directs synthesis of novel antitumor enkephalin analogs.** // *Amino acids (Wien)*. **38** (2010) , 4; 1185-1191 (članak, znanstveni).  
10. Supek, Fran; Škunca, Nives; Repar, Jelena; Vlahoviček, Kristian; Šmuc, Tomislav.  
**Translational Selection Is Ubiquitous in Prokaryotes.** // *Plos genetics*. **6** (2010) ; e1001004-1-e1001004-13 (članak, znanstveni).  

## Even other data is available...

Izvornik: Nature Communications (2041-1723) 5 (2014): 4222-4230

**Vrsta rada:** članak

**Ključne riječi:** tumour, hydra, transcriptome

**Sažetak:** The molecular nature of tumours is well studied in vertebrates, although their evolutionary origin remains unknown. We have studied naturally occurring tumours in pre-bilaterian animals, such as sponges and cnidarians. This is somewhat surprising because previous studies have predicted that most metazoans might be prone to develop tumours. Here we provide first evidence for naturally occurring tumours in *Hydra*. Histological, cellular and molecular data reveal that these tumours are transplantable and might originate by de novo growth. Growth of tumour cells is independent from the cellular environment. Tumour-bearing polyps have significantly reduced lifespan and show a greatly altered transcriptome that mimics expression shifts in vertebrate cancers. Therefore, this study shows that early evolutionary roots and that early branching animals may be informative in revealing the fundamental mechanisms of cancer.

**Projekt / tema: 098-0982913-2832**

Izvorni jezik: ENG

Current Contents: DA

Citation Index: DA

Kategorija: Znanstveni

**Znanstvena područja:** Biologija

Tiskani medij: da

Broj citata: Web of Science Core Collection: 8

InspireHep:

Nije moguće dohvatiti podatak o citiranosti rada

Scopus:

1

**Altmetric:**





DOI: 10.1038/ncomms5222

**Časopis izlazi u samo elektroničkom NE  
izdanju:**



# ...only The JIF matters:

1. Levatić, Jurica; Ćurak, Jasna; Kralj, Marijeta; Šmuc, Tomislav; Osmak, Maja; Supek, Fran.  
**Accurate Models for P-gp Drug Recognition Induced from a Cancer Cell Line Cytotoxicity Screen.** // *Journal of medicinal chemistry*. 56 (2013) , 14; 5691-5708 (članak, znanstveni, if=5.48).   
2. Radivojac, Predrag; ...; Škunca, Nives; Supek, Fran; , Šmuc, Tomislav.  
**A large-scale evaluation of computational protein function prediction.** // *Nature methods*. 10 (2013) , 3; 221-227 (članak, znanstveni, if=25.953). 
3. Šimpraga, Miljenko; Šmuc, Tomislav; Matanović, Krešimir; Radin, Lada; Shek-Vugrovečki, Ana; Ljubičić, Iva; Vojta, Aleksandar.  
**Reference intervals for organically raised sheep: Effects of breed, location and season on hematological and biochemical parameters.** // *Small ruminant research*. 112 (2013) , 1/3; 1-6 (članak, znanstveni, if=1.099).  
4. Ester, Katja; Supek, Fran; Majsec, Kristina; Marjanović, Marko; Lembo, David; Donalisio, Manuela; Šmuc, Tomislav; Jarak, Ivana; Karminski-Zamola, Grace; Kralj, Marijeta.  
**Putative mechanisms of antitumor activity of cyano-substituted heteroaryles in HeLa cells.** // *Investigational new drugs*. 30 (2012) , 2; 450-467 (članak, znanstveni, if=3.498).  
5. Čož-Rakovac, Rozelinda; Lisičić, Duje; Šmuc, Tomislav; Topić Popović, Natalija; Strunjak-Perović, Ivančica; Jadan, Margita; Tadić, Zoran; Jug Dujaković, Jurica.  
**Classification Modelling of Physiological Stages in Captive Balkan Whip Snakes Using Blood Biochemistry Parameters.** // *Journal of herpetology*. 45 (2011) , 4; 525-529 (članak, znanstveni, if=1.077).  
6. Smole, Zlatko; Nikolic, Nela; Supek, Fran; Šmuc, Tomislav; Sbalzarini, Ivo; Krisko, Anita.  
**Proteome sequence features carry signatures of the environmental niche of prokaryotes.** // *Bmc evolutionary biology*. 11 (2011) ; 1-26 (članak, znanstveni, if=3.521).   
7. Supek, Fran; Šumanovac Ramljak, Tatjana; Marjanović, Marko; Buljubašić, Maja; Kragol, Goran; Ilić, Nataša; Šmuc, Tomislav; Zahradka, Davor; Mlinarić-Majerski, Kata; Kralj, Marijeta.  
**Could LogP be a principal determinant of biological activity in 18-crown-6 ethers? Synthesis of biologically active adamantane-substituted diaza-crowns.** // *European Journal of Medicinal Chemistry*. 46 (2011) , 8; 3444-3454 (članak, znanstveni, if=3.346).   
8. Budimir, Ana; Šmuc, Tomislav; Weitner, Tin; Batinić-Haberle, Ines; Biruš, Mladen.  
**Thermodynamics and electrochemistry of manganese ortho-tetrakis(N-n-butylpyridinium-2-yl)porphyrin in aqueous solutions.** // *Journal of coordination chemistry*. 63 (2010) , 14/16; 2750-2765 (članak, znanstveni, if=1.932).  
9. Gredičak, Matija; Supek, Fran; Kralj, Marijeta; Majer, Zsuzsa; Hollosi, Miklos; Šmuc, Tomislav; Mlinarić-Majerski, Kata; Horvat, Štefica.  
**Computational structure-activity study directs synthesis of novel antitumor enkephalin analogs.** // *Amino acids (Wien)*. 38 (2010) , 4; 1185-1191 (članak, znanstveni, if=4.106).  
10. Supek, Fran; Škunca, Nives; Repar, Jelena; Vlahoviček, Kristian; Šmuc, Tomislav.  
**Translational Selection Is Ubiquitous in Prokaryotes.** // *Plos genetics*. 6 (2010) ; e1001004-1-e1001004-13 (članak, znanstveni, if=9.543).  

# Croatian researchers

- forced to publish in prestigious, “high impact factor” or “high ranked” journals
- Croatian scholarly journals are not valued properly, even in English language and with excellent editorial work

# Questions?

Are local journals a priori low quality journals?

What makes a journal “international” and “prestigious”?

What is the role of “local” or “regional” journals?

Why are „local” journals important?

What can be done to improve their **visibility**,  
**readability**, **citeability**, **impact**

Is the predominantly used metrics (JIF) fair enough?

Početna stranica

Abecedni popis časopisa

## Časopisi po područjima

Prirodne znanosti

Tehničke znanosti

Biomedicina i zdravstvo

Biotehničke znanosti

Društvene znanosti

Humanističke znanosti

## Uredništva

Posjećenost časopisa

Prijava novog časopisa

## Autori

Prijava radova

## O Hrčku

Hrčak je centralni portal koji na jednom mjestu okuplja hrvatske znanstvene i stručne časopise koji nude otvoreni pristup svojim radovima ili minimalno bibliografskim podacima i sažecima svojih radova ([više](#)).

O Hrčku:

- za uredništva časopisa ([upute](#), [etički kodeks](#))
- za [krajnje korisnike](#).

Trenutno u Hrčku:

Časopisa: 395

Objavljenih sveščića: 10.846

Ukupno objavljenih radova: 138.885

Objavljenih radova s cjelovitim tekstom: 133.143

## 10 najnovijih sveščića po datumu izdavanja

1. Metalurgija, 55(2), 2016
2. Metalurgija, 55(1), 2016
3. Journal of Sustainable Development of Energy, Water and..., 3(4), 2015
4. Građevinar, 67(09.), 2015
5. Oeconomica Jadertina, 5(1), 2015
6. Quaderni, XXVI(1), 2015
7. Naše more, Znanstveno-stručni časopis za more i pomorstvo, 62(3 (Special Issue)), 2015
8. EFZG Working Paper Series/EFZG Serija članaka u nastajanju, (07), 2015
9. Glasnik Hrvatskog botaničkog društva, 3(2), 2015
10. EFZG Working Paper Series/EFZG Serija članaka u nastajanju, (06), 2015

390 OA journals

139.000 full-text articles

## 10 zadnje objavljenih sveščića na Hrčku

1. Anafora - časopis za znanost o književnosti, 2(1), 2015
2. Građevinar, 67(09.), 2015
3. Političke perspektive, 3(2), 2013
4. Quaderni, XXVI(1), 2015
5. Business Systems Research, 6(2), 2015
6. Oeconomica Jadertina, 5(1), 2015
7. Prilozi povijesti umjetnosti u Dalmaciji, 17(1), 1968
8. Političke perspektive, 3(1), 2013
9. Cardiologia Croatica, 9(3-4), 2014
10. Cardiologia Croatica, 9(5-6), 2014



Pretraživanje članaka

traži

Napredno pretraživanje

Upute za pretraživanje

Moj profil

Registracija novih korisnika

Korisnička oznaka (email)

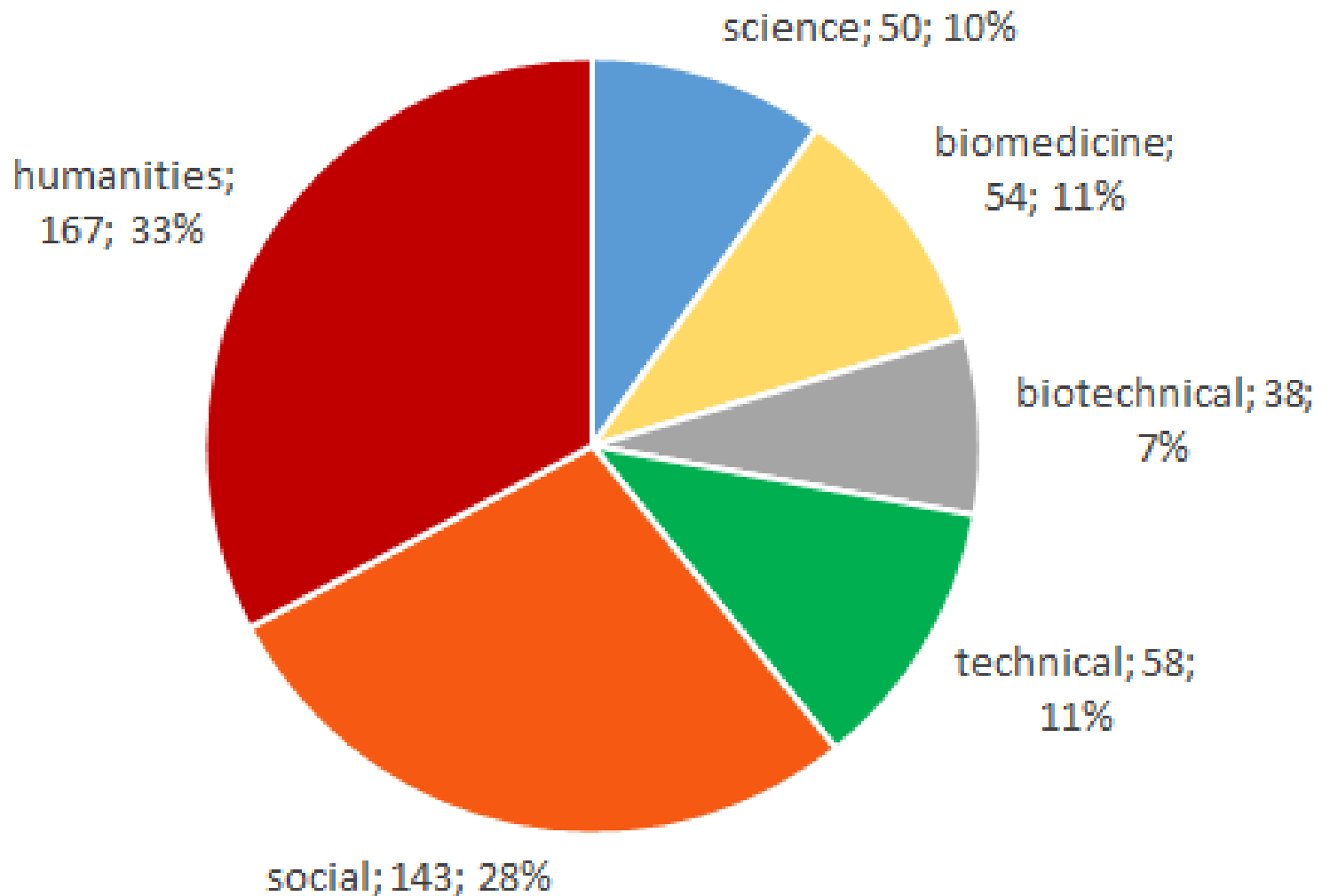
Lozinka

prijava

Zaboravili ste lozinku?



# HRCAK by disciplines



Original scientific paper  
10.5559/di.20.1.03



## Combining Work and Family Life in Croatia and Their Influence on Fertility

**Anđelko AKRAP** ; Faculty of Economics and Business, Zagreb ✉

**Ivan ČIPIN** ; Faculty of Economics and Business, Zagreb

Fulltext: [pdf](#) (1 MB), Croatian, Pages 47 - 68 , [downloads: 674 \\*](#)

### Abstracts

The dual-earner family is increasingly becoming a norm in the majority of developed countries. The aim of this paper is to investigate how developed is the infrastructure for combining family and work and what type of family models are preferred by employed women in Croatia. In the survey, based on a sample of 1309 employed women aged 20-39, different statistical techniques were applied to find their preferred family model and attitudes on women's labor market position. The results show that a large majority of employed women prefer the dual-earner model, where both parents have paid work outside of the household. Moreover, younger generations of women have more liberal views on women's position in the labor market. To increase women's employment and fertility in the same time is no easy task, but experience from countries where high women's employment rate coexists with higher fertility rate show it is not impossible. We conclude that the lack of possibility for part-time work in Croatia imposes a barrier for women who want to combine professional and family responsibilities.

### Keywords

fertility; combining professional and family responsibilities; employed women

674 downloads

1293 visits

[\[Croatian\]](#) [\[German\]](#)

Visits: 1.293 \*

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# **Study: Evaluation of the Croatian OA journals by different type of metrics**

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# Objective of the study

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- Shall other type of metrics, like number of visits or number of downloads, differ from citations metrics
  - In particular, comparison between paper downloads and citations counts was in focus
  - specificities of the disciplines were registered
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# Methods

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- May 2014 - 340 scholarly, professional and popular Croatian OA journals
  - 4 to 5.985 papers per journal, with an average number of 326 papers per journal
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# Research sample

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- 47 OA journals (28,121 papers) available in HRČAK repository and indexed by
    - **Web of Science**™ Core Collection (Thomson Reuters)
      - 28,725 indexed papers
    - **Scopus** (Elsevier)
      - 28,953 indexed papers
-

# Preprocessing challenges

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- Assembling a single data source based on three data sets
    - lack of (P)ID's for matching documents from different data sets
  - Titles were reduced to the same form
  - Levenshtein distance algorithm to determine similarity between paper titles (2 iterations)
    - 15,023 (53%) papers in Web of Science and 16,592 (57%) papers in Scopus matched with HRČAK titles
    - 13,127 (ca. 46%) unique papers merged from all three data sets
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# Results

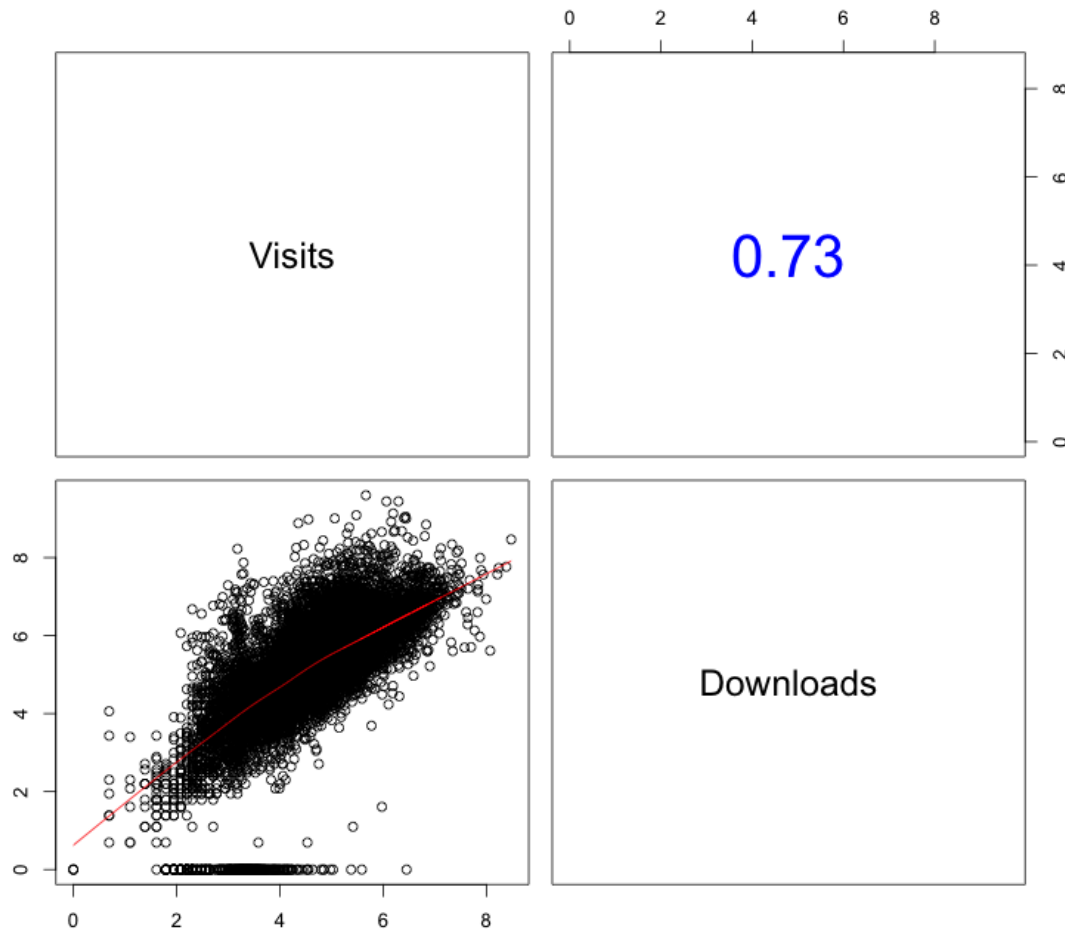
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- download and citation frequencies (March 2007 - May 2014)

Matched articles	HRC AK visits	HRC AK Downloads	Scopus citations	WOS citations
13,127	2,084,174	4,174,888	38,106	30,324

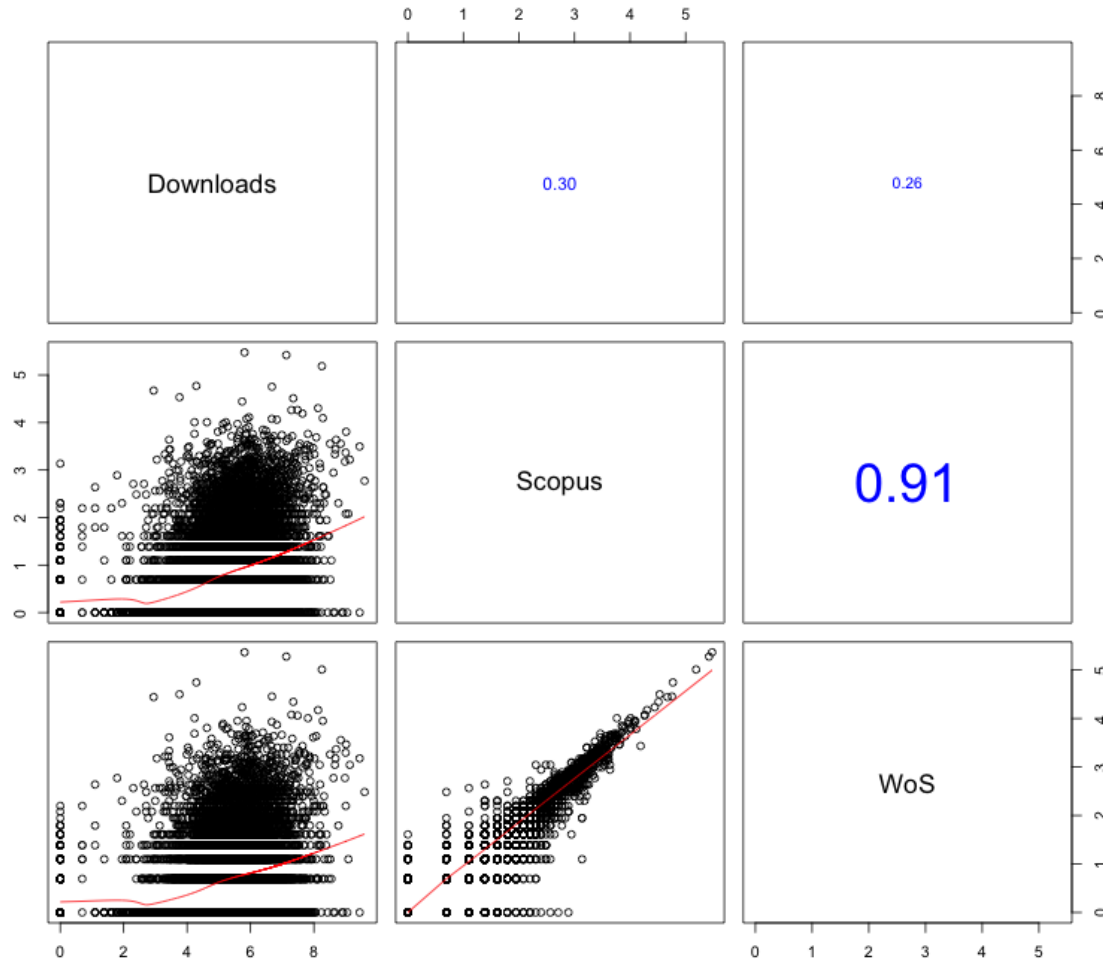
```
cor(log(1+HRVisits, HRDown),  
method="spearman")
```

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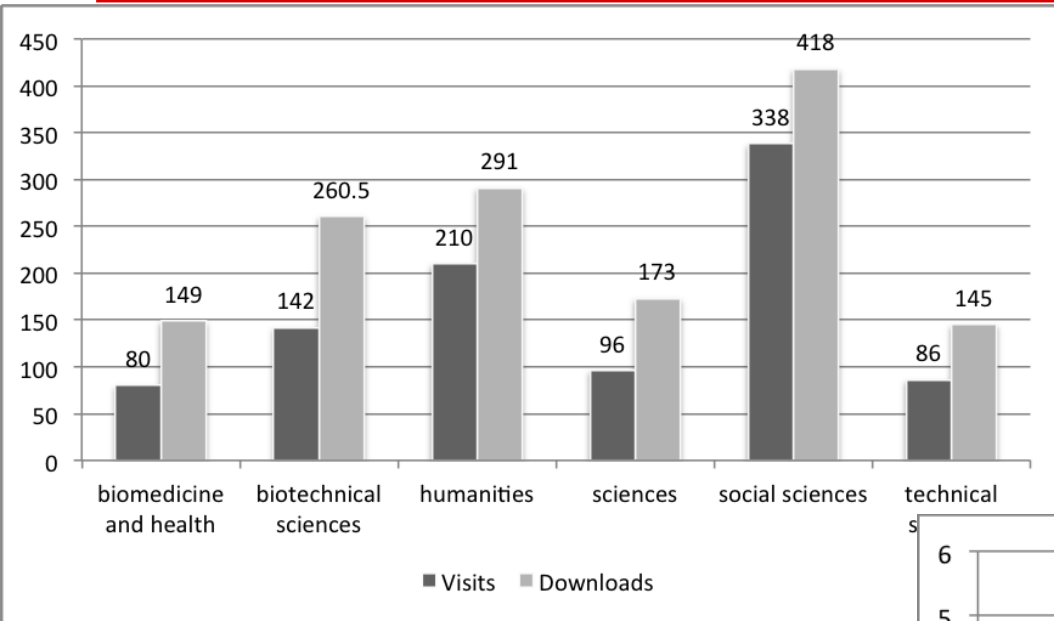


# `cor(log(1+HRDown, ScopusCit, WoSCit), method="spearman")`

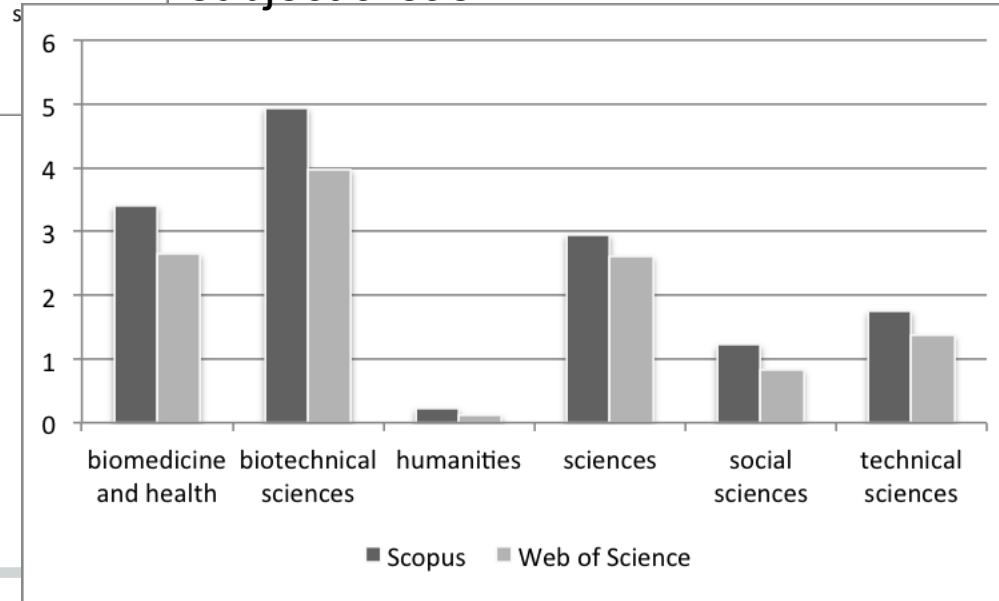
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# Median number of visits and downloads & Mean number of citations



Mean number of Scopus and Web of Science citations relative to six subject areas



Median number of HRC AK visits and downloads relative to six subject areas

# Key results

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- Very strong, strong and low correlations
    - Scopus and WoS citation counts
    - article page visits and downloads
    - downloads and citation counts
  - But, with significant differences between and within six subject areas
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# Conclusion

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Important to have different (MULTIPLE) but complementary measures for better reflecting the multifaceted and multidimensional character of scientific work (output, impact, activities ...)

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# Possible metrics for an article

total number of citations (Google Scholar, Scopus, WoS...) –  
deduplicated

# visits

# downloads

# comments

# bookmarks at social networks, sharing, mentioning

expert's rating, grades, „likes”...

# discussions (blogs)

# appearance in other media (newspapers...)

# Future

Dynamical, multilayer, interactive, multimedia content

„Machine readable” articles

RDF, linked data

Research data

Different formats (beyond PDF)

Author identification (ORCID?)

Publication identification (DOI? OpenURL?)

everything is in OA

publishers are selling „added value”

# Acknowledgment

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- HRČAK team (University Computing Centre)
  - Tomislav Jagušt (Faculty of Electrical Engineering and Computing, University of Zagreb)
-