Publishing your Research

Sven Apel
Publish... why?
Publish... where?
Publish... for whom?
Publish... how?
Publish... what?
Publish... when?
Publish... why?
Publish... where?
Publish... for whom?
Publish... how?
Publish... what?
Publish... when?
My...
Possibly...
Career Stages

2003 PhD Student @ University of Magdeburg

2007 Post-Doc @ University of Passau

2010 Junior Research Group Leader

2013 Full Professor
My Record

28 papers in top conferences (ICSE, ESEC/FSE, ASE)

13 articles in top journals (TSE, TOSEM, TOPLAS, EMSE)

CACM, ACM Computing Surveys, IEEE Computer, ...

Text book
The Currency of Research?
Beware!

*hyp·o·cr·ite*  
(hip′ə krıt)  
Function: noun  

**Meaning:**  
1. a person who puts on a false appearance of virtue or religion  
2. a person who acts in contradiction to his or her stated beliefs or feelings
Quality over Quantity!

- h-index
- pressure
- misbehavior
Deutsche Forschungsgemeinschaft

Evaluation des DFG-Förderprogramms SFB/Transregio
Abbildung 11:
Vergleich der h-Indices der Teilprojektleiterinnen und Teilprojektleiter von acht SFB/Transregio (TRR) und neun Sonderforschungsbereichen (SFB) aus dem Fachgebiet Medizin (Einrichtungsjahre 2000 bis 2007)


Quelle: DFG-Geschäftsstelle, Elsevier Scopus Datenbank, Auswertung und Darstellung Technopolis
Topics...

Venues

Bibliometrics

Tradeoffs and Strategies

Co-Author
Venues
Venues

Top venues: ICSE, ESEC/FSE, ASE

Focus venues: SPLC, GPCE, ICPE, RE, MoDELS, ...

Community meetings: FOSD, VaMoS, ...

Going beyond: IEEE Software, CACM, ...
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issues: prestige, outreach, feedback, networking, ...
Pro tip: Grow a Community
Bibliometrics
Bibliometrics

# papers
# citations
i10-index
i100-index
h-index
...

Bibliometrics

# papers
# citations
i10-index
i100-index
h-index
...

more than \textbf{\textit{h}} citations
\textbf{\textit{citations}} = \textbf{\textit{papers}} = \textbf{\textit{h}}

first \textbf{\textit{h}} papers
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<th>Title</th>
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<tr>
<td>Granularity in software product lines</td>
<td>478</td>
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<td>An overview of feature-oriented software development</td>
<td>384</td>
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<td>An analysis of the variability in forty preprocessor-based software product lines</td>
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<td>A case study implementing features using AspectJ</td>
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<td>FeatureC++: On the symbiosis of feature-oriented and aspect-oriented programming</td>
<td>229</td>
<td>2005</td>
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<td>A classification and survey of analysis strategies for software product lines</td>
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<td>Aspectual feature modules</td>
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<td>Aspectual mixin layers: aspects and features in concert</td>
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<td>Type safety for feature-oriented product lines</td>
<td>131</td>
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<td>Type checking annotation-based product lines</td>
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<td>Type-checking software product lines: a formal approach</td>
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<td>Strategies for product-line verification: case studies and experiments</td>
<td>118</td>
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<td>Virtual separation of concerns: a second chance for preprocessors</td>
<td>108</td>
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<td>SPL Conqueror: Toward optimization of non-functional properties in software product lines</td>
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<td>Detection of feature interactions using feature-aware verification</td>
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<td>9</td>
<td>171</td>
<td>Burkhard Rost</td>
</tr>
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</table>
CSRankings: Computer Science Rankings

CSRankings is a metrics-based ranking of top computer science institutions around the world. Click on a triangle (↑) to expand areas or institutions. Click on a pie (the chart after a name or institution) to see their publication profile as a pie chart. Click on a Google Scholar icon (★) to see publications, and click on the raw number of publications to go to a DBLP entry.

Rank institutions in the world by publications from 2007 to 2018.

All Areas [off | on]

AI [off | on]
- Artificial Intelligence
- Computer vision
- Machine learning & data mining
- Natural language processing
- The Web & information retrieval

Systems [off | on]
- Computer architecture
- Computer networks
- Computer security
- Databases
- Design automation
- Embedded & real-time systems
- High-performance computing
- Mobile computing
- Measurement & perf. analysis
- Operating systems
- Programming languages
- Software engineering

Theory [off | on]
- Algorithms & complexity
- Cryptography
- Logic & verification

Interdisciplinary Areas [off | on]

1. University of California - Davis
2. University of British Columbia
3. Carnegie Mellon University
4. University of California - Irvine
5. University of Nebraska
6. National University of Singapore
7. Univ. of Illinois at Urbana-Champaign
8. HKUST
9. Peking University
10. University College London
11. North Carolina State University
12. University of Washington
13. University of Southern California
14. Università della Svizzera italiana
15. University of Buenos Aires
16. TU Darmstadt
17. University of Texas at Dallas
18. University of Passau
# Top H-Index For Scientists in Germany:

We list only scientists having H-index>40. If you or other scholars are not listed, we appreciate if you can contact us.

**Search by name:**  
**View by country:**  

<table>
<thead>
<tr>
<th>World</th>
<th>National Ranking</th>
<th>Scholar</th>
<th>University</th>
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Pro tip: Do not ignore bibliometrics

Applying for a Greencard

Selecting program committee members

“Sorting” job and grant applications (e.g., ERC)

...
Pro tip: Do not ignore bibliometrics

Applying for a Green card

Selecting program committee members

“Sorting” job and grant applications (e.g., ERC)

Pro question:
How often is your DBLP or Google Scholar profile opened during your talk?
Bibliometrics Psychology

Losers  Myself  Cheaters
Yes, but Impact?

See talks by:
Tradeoffs and Strategies
#1: Salami vs. All-In-One
Think quality over quantity: ever thought about focusing on a single paper but making it Turing Award worthy?

#stopthenumbersgame
Antwort an @SvenApel

Think quality over quantity, and focus on and not the number of papers.

#stopthenumbersgame

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2

1

ICSE 2019 Technical Papers

Call for Papers

ICSE is the premier forum for presenting and discussing the most recent and significant technical research contributions in the field of Software Engineering. We invite high quality submissions of technical research papers describing original and unpublished results of software engineering research. We welcome submissions addressing topics across the full spectrum of Software Engineering.

Each paper submitted to the Technical Track will be evaluated based on the following criteria:

- Soundness: How well the paper’s contributions are supported by rigorous application of appropriate research methods,
- Significance: The extent to which the paper’s contributions are novel, original, and important, with respect to the existing body of knowledge,
- Verifiability: Whether the paper includes sufficient information to support independent verification or replication of the paper’s claimed contributions,
- Presentation: Whether the paper’s quality of writing meets high standards of ICSE, including clear descriptions and explanations, adequate use of the English language, absence of major ambiguity, clearly readable figures and tables, and adherence to the formatting instructions provided.

How to Submit:

**A Technical Track submission must not exceed 10 pages** including all text, figures, tables, and appendices, two additional pages containing only references are permitted. It must conform to the IEEE Conference Proceedings Formatting Guidelines (title in 24pt font and full text in 10pt type, LaTeX users must use \documentclass[10pt,conference] (IEEEtran) without including the \psfig or \psfigconf option).

The submission must also comply with the ACM plagiarism policy and procedures. In particular, it must not have been published elsewhere and
#2: Brilliant Idea vs. Solid Evidence
Where is the evidence?
Not novel!
Not novel!

Where is the evidence?

issues: arouse interest, deliver solid evidence, ...
2015 IEEE/ACM 37th IEEE International Conference on Software Engineering

Views on Internal and External Validity in Empirical Software Engineering

Janet Siegmund, Norbert Siegmund, and Sven Apel
University of Passau, Germany

Abstract—Empirical methods have grown common in software engineering, but there is no consensus on how to apply them properly. Is practical relevance key? Do internally valid studies have any value? Should we replicate more to address the tradeoff between internal and external validity? We asked the community how empirical research should take place in software engineering, with a focus on the tradeoff between internal and external validity and replication, complemented with a literature review about the status of empirical research in software engineering. We found that the opinions differ considerably, and that there is no consensus in the community when to focus on internal or external validity and how to conduct and review replications.

I. INTRODUCTION

Empirical research in software engineering came a long way. From being received as a niche science, the awareness of its importance has increased. In 2005, empirical studies were found in about 2% of papers of major venues of conferences [31], while in recent years, almost all papers of ICSE, ESEC/FSE, and EMSE reported some kind of empirical evaluation (see Section III). Thus, the amount of empirically investigated claims has increased considerably.

...we first need to classify [measuring factors] before eventually being able to generalize.

Without internal validity, the results cannot be trusted.

With internal validity you might get a more 'valid' result, but the result could not be extended anything about the real world.

Fig. 1. Preferences for internal vs. external validity among program-committee and editorial-board members.

...but at the cost of not being able to unambiguously understand why the new tool affects the work flow—maybe it is just because it is new.

There is an inherent tradeoff in empirical research: Do we want observations that we can fully explain, but with a limited generalizability, or do we want results that are applicable to a variety of circumstances, but where we cannot reliably explain why they hold?
#3: Being Inclusive vs. Exclusive
#3: Being Inclusive vs. Exclusive

issues: competition, join forces, avoid free riding, bibliometrics...
#3: Being Inclusive vs. Exclusive

“He/she has always many co-authors.”
“He/she was never the sole author.”
“He/she is a free rider.”

issues: competition, join forces, avoid free riding, bibliometrics...
#4: Being a Student vs. Advising Students
#4: Being a Student vs. Advising Students

issues: practice, early feedback, taste of success, ...
#5: Social Media vs. Traditional Publishing

**SCIENCE:**

A WEEKLY RECORD OF SCIENTIFIC PROGRESS.

ILLUSTRATED.

VOLUME I.

July to December.

---

Edited by JOHN MICHELS.

PUBLISHED AT 229 BROADWAY,
NEW YORK.
#5: Social Media vs. Traditional Publishing

Kardashian Index

The Kardashian Index (K-Index), named after Kim Kardashian, is a measure of the discrepancy between a scientist's social media profile and publication record.[1]

Proposed in 2014, the measure compares the number of followers a research scientist has on Twitter to the number of citations they have for their peer-reviewed work.
Pro tip: try to get into program committees, grant and award panels, editorial boards, ...
Choose your party wisely
Choose your party wisely

The Free Rider
The Deadliner
The Skeptic (bad cop)
The Enthusiast (good cop)
The Power User
The Headless Chicken

...
Choose your party wisely

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Pro tip: keep submitting to the best venues
Author Order (or Reise nach Jerusalem / Musical Chairs)

Alphabetical
By contribution
By seniority
By location
First come, first serve

...
Author Order (or Reise nach Jerusalem / Musical Chairs)

Alphabetical
By contribution
By seniority
By location
First come, first serve

Different roles $\rightarrow$ different preferences
Author Order (or Reise nach Jerusalem / Musical Chairs)

Alphabetical
By contribution
By seniority
By location
First come, first serve
...

Different roles → different preferences

Pro tip: decide as early as possible!
(Double-blind reviewing may even worsen the problem!)
After all, do not forget...

“No winner believes in the accident!”