

SoSyM

Springer International Journal on
Software and Systems Modeling

2023 Editorial Board Meeting

www.springer.com/10270

SoSyM Editorial Board Meeting

1. **Introducing Benoit Combemale as an additional/new Editor-In-Chief, with Stéphanie Challita as Assistant Editor**
2. **Publisher's Report (E. Dziubela)**
3. **SoSyM news and changes (J. Gray, B. Rumpe, M. Schindler)**
4. **Report on Current Action Items**
 - The Ambassadors for India and China**
 - Activities spawned at Models'22 meeting**
5. **Feedback/Comments from editors**
6. **Next meeting**

Additional Editor-in-Chief and Assistant Editor



New SoSyM Editor-in-Chief

Prof. Benoit Combemale

University of Rennes

<https://people.irisa.fr/Benoit.Combemale>

Contact him at benoit.combemale@sosym.org



New SoSyM Assistant Editor

Dr. Stéphanie Challita

University of Rennes

<https://stephaniechallita.github.io>

Contact her at stephanie.challita@sosym.org

Retiring Editors in 2022

- Heinrich Hussman
- Perdita Stevens
- Gordon Blair

New Editors in 2022



Peter J. Clarke



Sudipto Ghosh



Holger Giese



Houari Sahraoui



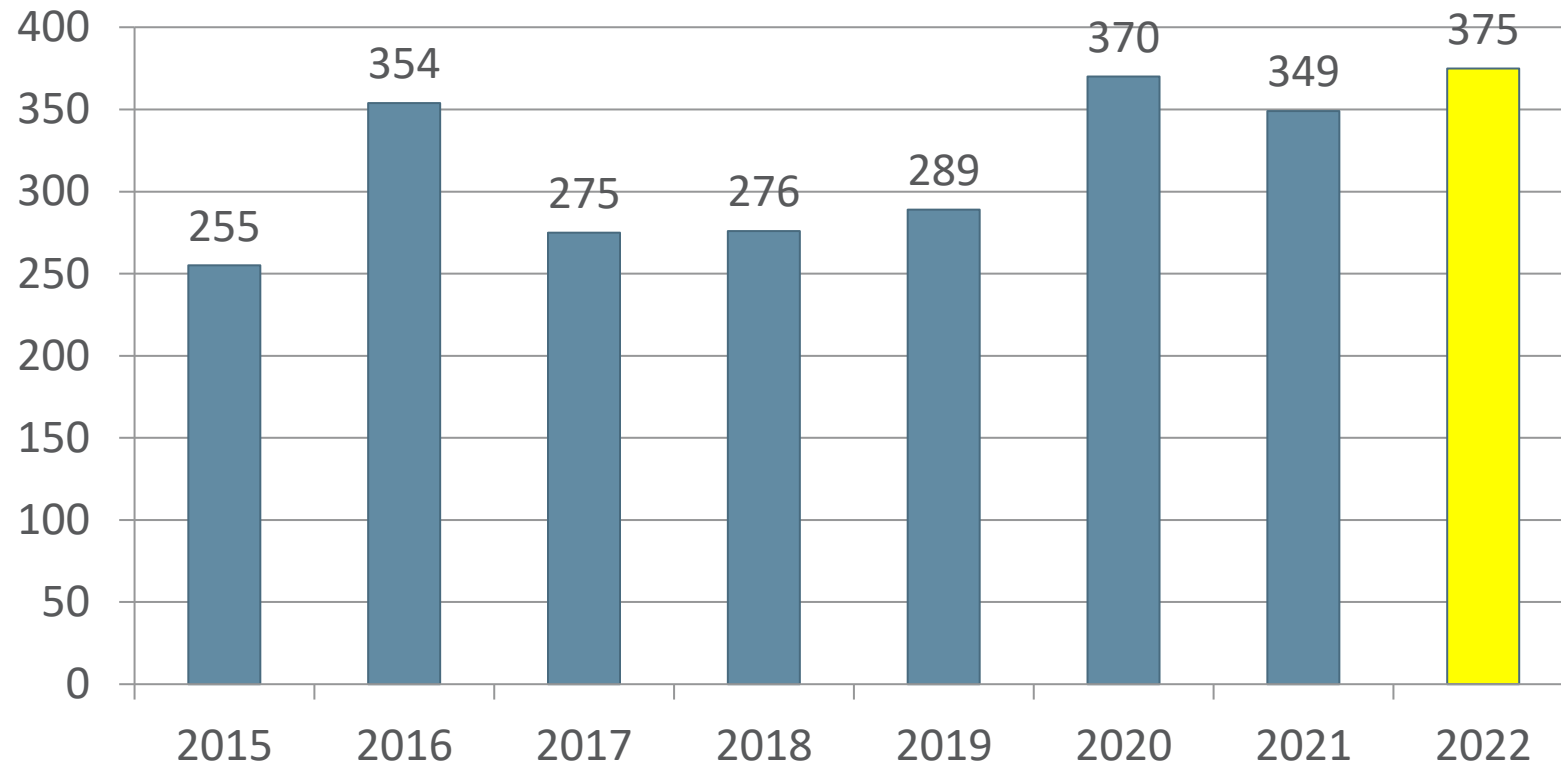
Barbara Weber

Your Contact at Springer

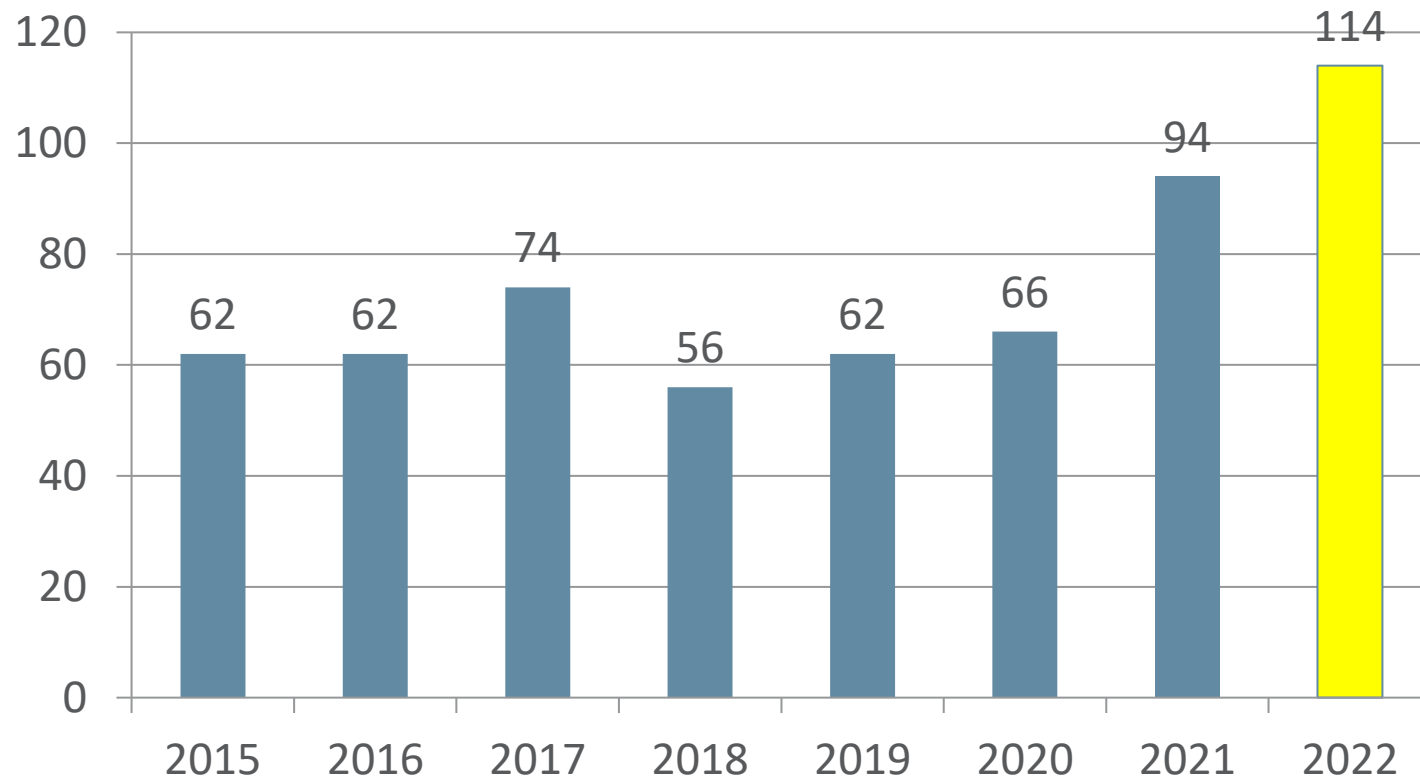
Elizabeth Dziubela
Editor, Computer Science Journals
elizabeth.dziubela@springer.com



Metrics: Submissions



Metrics: Articles Published



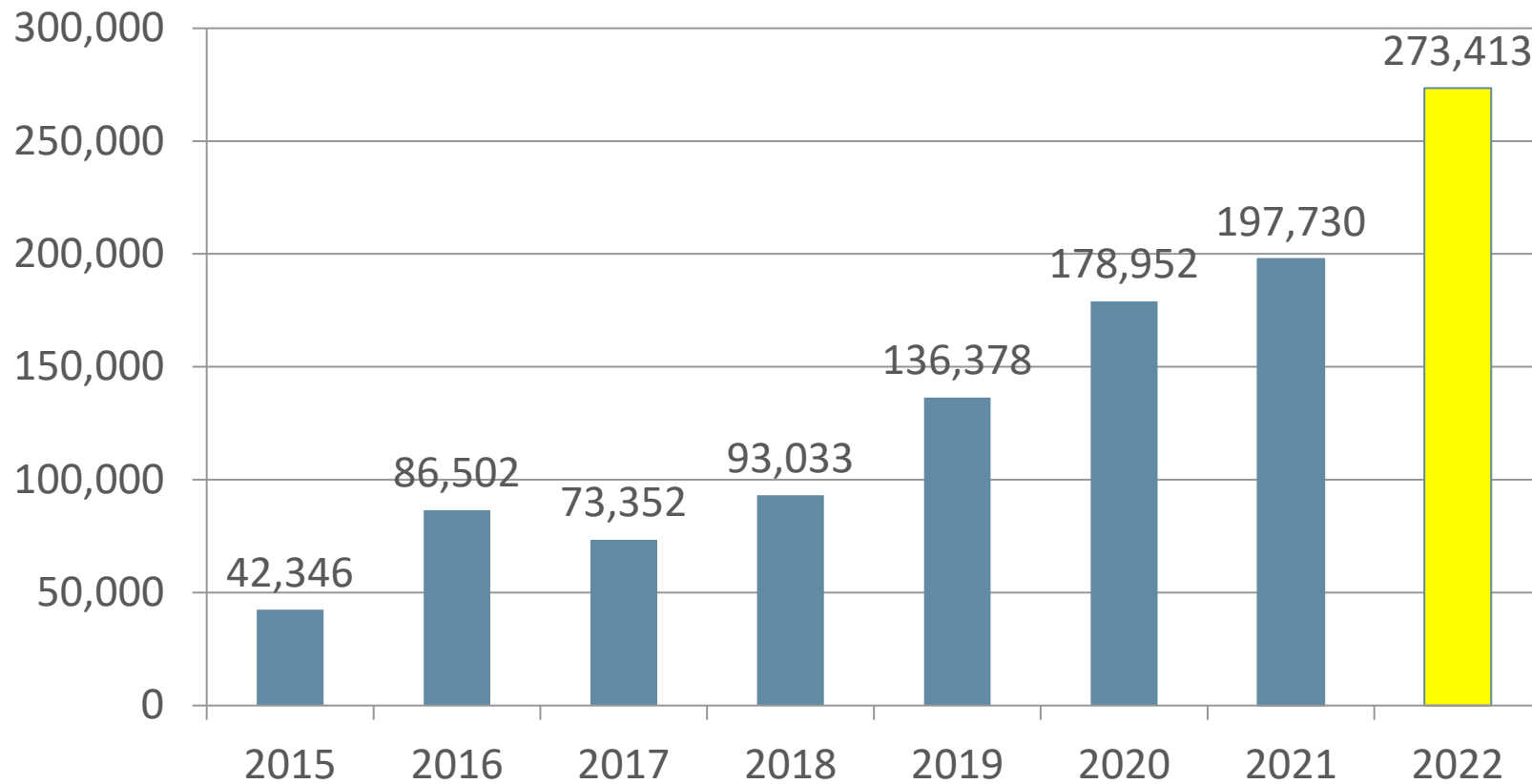
Author Region of Origin of Manuscripts Submitted and Accepted 2019-2022

Region	Number of Manuscripts Submitted				Number of Manuscripts Accepted			
	2019	2020	2021	2022	2019	2020	2021	2022
Germany	27	29	33	24	9	12	14	10
Spain	20	22	31	14	7	5	15	6
Canada	12	13	21	11	2	5	10	6
Italy	8	7	16	14	4	4	7	7
France	12	14	14	16	3	4	5	5
Austria	10	10	7	1	4	5	2	1
United Kingdom of Great Britain and Northern Ireland	14	8	20	5	5	2	6	2
Sweden	6	9	9	11	0	5	4	5
Netherlands	7	10	3	8	1	5	1	3
China	10	19	18	32	0	3	0	5
Norway	5	6	7	8	1	2	1	4
Iran (the Islamic Republic of)	14	12	18	10	2	1	1	3
Brazil	22	12	15	6	3	0	2	1
Belgium	2	6	9	6	0	1	2	3
Switzerland	0	0	5	2	0	0	5	1
Hungary	3	3	5	1	1	1	3	0
United States	7	14	8	6	0	2	2	1
Luxembourg	0	0	5	5	0	0	1	3
Israel	3	9	2	3	1	2	1	0
Argentina	2	6	2	2	0	2	1	0

*sorted by "number of manuscripts accepted " from large to small

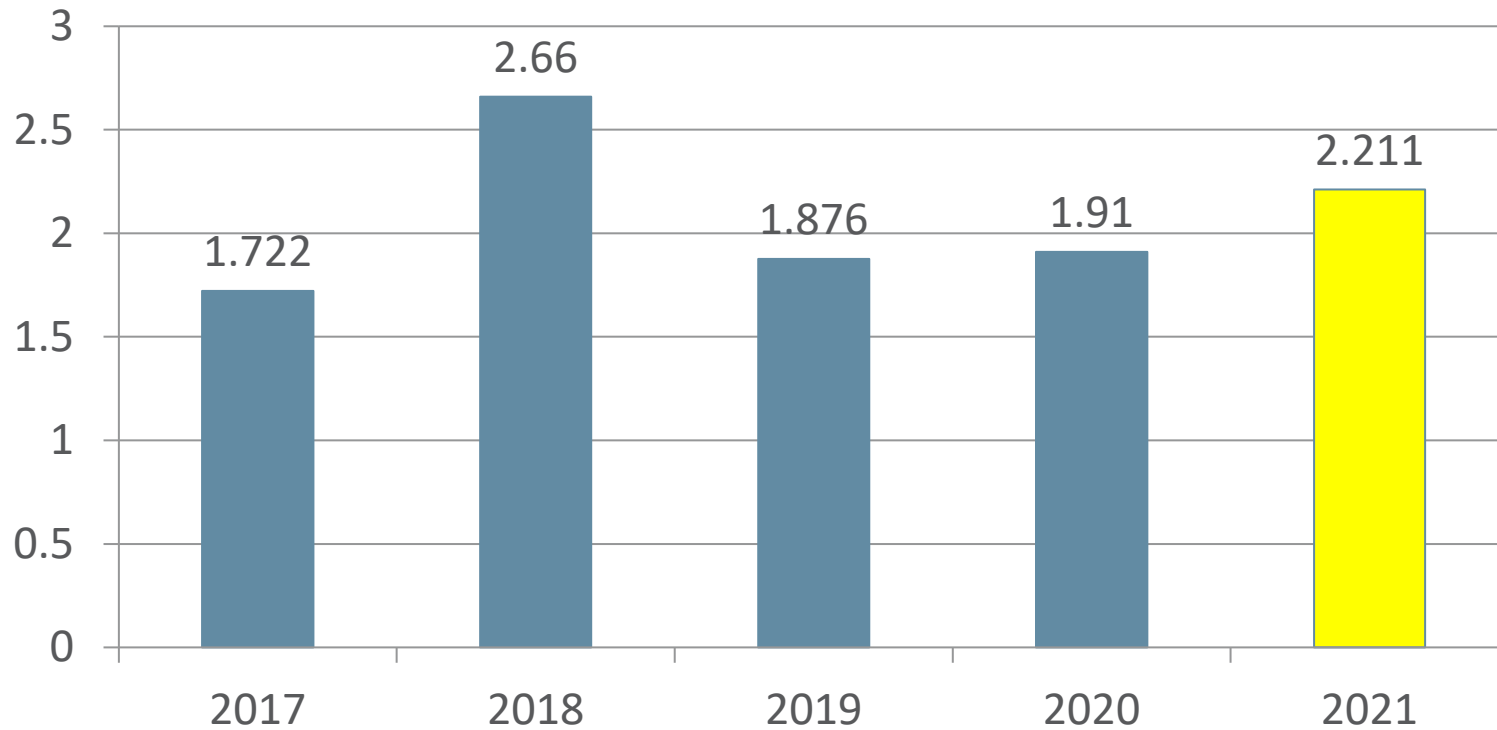
Region	Number of Manuscripts Submitted				Number of Manuscripts Accepted			
	2019	2020	2021	2022	2019	2020	2021	2022
Australia	2	0	2	1	0	1	0	1
Greece	3	2	1	1	0	1	1	0
Turkey	3	3	6	4	0	1	0	1
Chile	2	2	2	0	0	0	1	0
Japan	2	2	0	1	0	1	0	0
India	30	26	30	29	0	0	0	1
Tunisia	6	8	4	7	0	0	0	1
Uruguay	0	0	1	1	0	0	0	1
Korea (the Democratic People's Republic of)	1	1	1	1	0	0	0	0
Colombia	2	0	0	0	0	0	0	0
Ecuador	0	1	0	0	0	0	0	0
Iceland	0	1	0	1	0	0	0	0
Taiwan	3	3	3	0	0	0	0	0
Thailand	0	0	2	0	0	0	0	0
Viet Nam	1	0	0	2	0	0	0	0
Other regions	47	98	36	127	5	8	9	10
Total	286	356	346	360	48	73	94	81

Metrics: Downloads



Impact

Journal Impact Factors are published each summer by Clarivate Analytics via Journal Citation Reports®. Impact Factors and ranking data are always presented for the preceding calendar year. These metrics help to measure influence and impact at the journal and category levels, but not on the level of individual articles or authors.



Impact

Top ranking highest cited 2019-2020 articles for IF Year 2021

Title	Author	Publication Date	DOI	Total Citations*	Citations For IF 2021
Grand challenges in model-driven engineering: an analysis of the state of the research	Bucchiarone, Antonio; Cabot, Jordi, Paige, Richard F; Pierantonio, Alfonso	2020	10.1007/s10270-019-00773-6	54	31
Models@run.time: a guided tour of the state of the art and research challenges	Bencomo, Nelly; Goetz, Sebastian; Song, Hui	2019	10.1007/s10270-018-00712-x	44	27
Modeling languages in Industry 4.0: an extended systematic mapping study	Wortmann, Andreas; Barais, Olivier; Combemale, Benoit; Wimmer, Manuel	2020	10.1007/s10270-019-00757-6	46	26
Thirteen years of SysML: a systematic mapping study	Wolny, Sabine; Mazak, Alexandra; Carpella, Christine; Geist, Verena; Wimmer, Manuel	2020	10.1007/s10270-019-00735-y	33	17
RoboChart: modelling and verification of the functional behaviour of robotic applications	Miyazawa, Alvaro; Ribeiro, Pedro; Li, Wei; Cavalcanti, Ana; Timmis, Jon; Woodcock, Jim	2019	10.1007/s10270-018-00710-z	23	14
Survey and classification of model transformation tools	Kahani, Nafiseh; Bagherzadeh, Mojtaba; Cordy, James R.; Dingel, Juergen; Varro, Daniel	2019	10.1007/s10270-018-0665-6	41	13

Impact

Top ranking highest cited 2019-2020 articles for IF Year 2021 (Cont.)

Title	Author	Publication Date	DOI	Total Citations*	Citations For IF 2021
Multi-view approaches for software and system modelling: a systematic literature review	Cicchetti, Antonio; Ciccozzi, Federico; Pierantonio, Alfonso	2019	10.1007/s10270-018-00713-w	21	10
IoT meets BPM: a bidirectional communication architecture for IoT-aware process execution	Schoenig, Stefan; Ackermann, Lars; Jablonski, Stefan; Ermer, Andreas	2020	10.1007/s10270-020-00785-7	16	10
Hybrid co-simulation: it's about time	Cremona, Fabio; Lohstroh, Marten; Broman, David; Lee, Edward A.; Masin, Michael; Tripakis, Stavros	2019	10.1007/s10270-017-0633-6	26	9
Benchmarking bidirectional transformations: theory, implementation, application, and assessment	Anjorin, Anthony; Buchmann, Thomas; Westfechtel, Bernhard; Diskin, Zinovy; Ko, Hsiang-Shang; Eramo, Romina; Hinkel, Georg; Samimi-Dehkordi, Leila; Zuendorf, Albert	2020	10.1007/s10270-019-00752-x	15	9
A feature-based survey of model view approaches	Bruneliere, Hugo; Burger, Erik; Cabot, Jordi; Wimmer, Manuel	2019	10.1007/s10270-017-0622-9	18	8
Effective product-line testing using similarity-based product prioritization	Al-Hajjaji, Mustafa; Thuem, Thomas; Lochau, Malte; Meinicke, Jens; Saake, Gunter	2019	10.1007/s10270-016-0569-2	17	8

*Data available as of 2002

Google Scholar Rankings: Software and Systems

	<u>Journal</u>	<u>h5-index</u>
1.	ACM/IEEE International Conference on Software Engineering	76
2.	IEEE Transactions on Software Engineering	66
3.	Journal of Systems and Software	61
4.	Information and Software Technology	59
5.	ACM SIGSOFT International Symposium on Foundations of Software Engineering	57
6.	Empirical Software Engineering	56
7.	Proceedings of the ACM on Programming Languages	55
8.	IEEE Software	47
9.	IEEE/ACM International Conference on Automated Software Engineering (ASE)	47
10.	ACM SIGPLAN-SIGACT Symposium on Principles of Programming Languages (PLDI)	47
11.	Mining Software Repositories	45
12.	Symposium on Operating Systems Principles	43
13.	International Conference on Software Analysis, Evolution, and Reengineering (SANER)	42
14.	Software & Systems Modeling	40
15.	International Symposium on Software Testing and Analysis	39
16.	IEEE International Conference on Software Maintenance and Evolution	36
17.	International Conference on Tools and Algorithms for the Construction and Analysis of Systems (TACAS)	35
18.	Software: Practice and Experience	34
19.	IEEE Annual Computer Software and Applications Conference (COMPSAC)	30
20.	IEEE International Requirements Engineering Conference	30

****SoSyM's 2020 h5-index was 42, Rank was #14**

The h5-index is a product of Google Scholar and shows a journal's h-Index based on the journal's articles published in the last 5 calendar years (with an overall minimum of 100 articles published during these years). The variable h is defined as the largest number of articles that have each been cited h times. The h5-Index therefore cannot be dominated by one or a few highly cited articles.

Open Access

SoSyM is a transformative journal, meaning authors can choose to publish either the traditional route or via immediate gold Open Access.

SoSyM Open Access content in 2022: 52% vs 2021: 54%

Transformative Agreements

Our Transformative Agreements enable participating institutions to combine journal subscription access along with OA publication costs (APCs). If your institution has a Transformative Agreement, you may publish your article OA with your fees covered, in Springer Nature journals that are included in the agreement.

At the end of 2022, Springer Nature had over 3,400 agreements, with plans to add more agreements in 2023.

Journal-First Papers & Awards

Journal-First Papers @ MODELS:

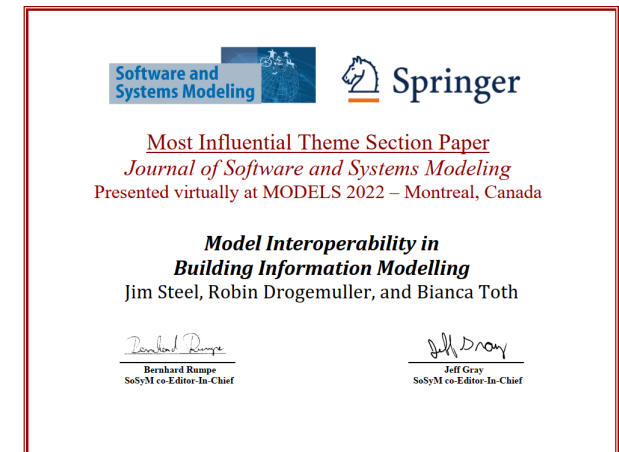
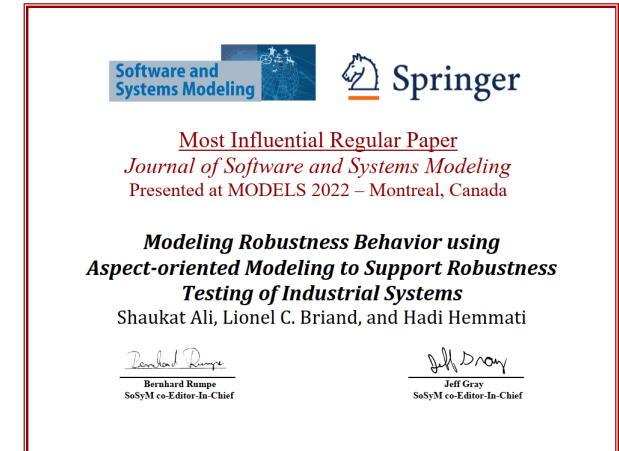
https://www.sosym.org/journal_first/

- 2015: 4 papers
- 2016: 4 papers
- 2017: 6 papers
- 2018: 4 papers
- 2019: 7 papers
- 2020: 10 papers
- 2021: 30 papers
- 2022: 24 papers

And for 2023 we already have 11 regular papers and 1 theme section papers as candidates so far!

Awards:

1. most influential regular and theme section paper award (2015 – 2017: 8 year; since 2018: 10 years)
<https://www.sosym.org/awards/>
2. reviewer awards send together with reviewer certificates early January each year
https://www.sosym.org/reviewer_awards/



Topics for Theme Sections suggested by the Editorial Board, but not yet in work (for information?)

Machine Learning combined with explicit Models
Integrating Engineering and Machine-Learned Models
Extracting Engineered Models from ML (as explanation?)
Modeling Internet of Things (IoT)
Low-Code
Modeling Cybersecurity

(running: Digital Twin)

Industry 4.0
Modeling Laws and Contracts for Digitalization
Scientific Models in Domain X (for Simulation/Prediction/ etc.), e.g. climate models
Predictive Models
Formal Models and their Verification
Modeling Requirements: from Textual to Model-Based?
Multi-Viewpoint Modeling
Models in Agile Systems Engineering Processes
Explicit Models Augmented with Uncertainty
Model-based Systems Engineering: State of the Art?

*Interests -- in one
of these or
another one?*

Activities by our Ambassador for

- **India**
Vinay Vkulkarni
- **China**
Tao Yue
- **South America**
Open
- **Japan (c/o. Asia)**
Open

Activities spawned at Models'22 meeting

Action item: confirm activity/participants

Goal: present results & actions to take in next EB meeting (if not earlier)

- **Validation in Models Papers**
Manuel Wimmer, Tony Clark, Ulrich Frank, Silvia Abrahao, Marsha Chechik
- **Excellent Models (and explanation) as direct publication**
Silvia Abrahao, Steffen Zschaler, Juergen Dingel, Manuel Wimmer, Alexander Egyed, Marsha Chechik, Daniel Varro, Richard Paige
- **Extending the domains SoSyM covers**
Richard Paige
- **Labeling and knowledge based connecting SoSyM papers (for better finding)**
Lola Burgueño, Benoit Combemale

Labeling and knowledge based connecting SoSyM papers

INTRODUCTION

- A “SoSyM Collection” is a set of SoSyM papers that are related to a particular “topic” (which defines the collection).
- Unlike Springer Collections (<https://springerplus.springeropen.com/articles/collections>), we allow papers to belong to more than one Collection.
- Topics are relevant matters of interest to the area of software and system modeling, currently used in SoSyM to define Theme Sections (https://www.sosym.org/theme_sections/)

Labeling and knowledge based connecting SoSyM papers

USE CASES

- **At first, a collection can be used to identify the contents of a Theme Section on a particular topic from the articles published in SoSyM.**
 - The list of Collections is fixed (but subject to change over time) and determined by SoSyM.
 - Each time an article is published, it is assigned to one or more of the existing collections.
- **New Collections can be defined by their main topic, and a “classifying” application is able to search through SoSyM papers for those that may belong to the collection.**
 - The classification is automated, although their results can also be manually refined, as is often done in surveys and systematic literature reviews. In this way, a user can learn about the coverage of a certain topic by the articles published in SoSyM.
- **Finally, a topic modelling / natural language processing application can help identify, from the information of the papers published in SoSyM, emerging topics in the area of software and system modeling.**

Labeling and knowledge based connecting SoSyM papers

REALIZATION

- Both the collections and the applications that create, update and manage them can reside in the sosym.org server
- The information from the papers used for their classification will be extracted from Scopus or DBLP (to be decided). It consists of the title, abstract and keywords.
- The initial list of collections will correspond to the topics of the special sections defined by SoSyM (not only already published and in progress, but also those suggested)
- *We currently have a student looking into this!*

Volume 20 · Number 3 · June 2021

Software and Systems Modeling

Model-based
development

- ▶ Languages
- ▶ Architectures
- ▶ Methods
- ▶ Tools

 Springer

www.springer.com/10270

Q&A

 Springer