

**Formal Methods Europe  
Minutes of the 75<sup>th</sup> meeting  
Held during FM'23 in Lübeck, Germany  
7 March 2023  
[www.fmeurope.org](http://www.fmeurope.org)**

*Present* at the meeting were:

- Bernhard Aichernig [U. Graz]
- Nicolas Amat [LAAS-CNRS]
- Domenico Bianculli [U. Luxembourg, online]
- Achim Brucker [U. Exeter]
- Ana Cavalcanti (Chair) (U. York)
- Silvano Dal Zilio [LAAS-CNRS]
- Erik de Vink [TU Eindhoven]
- Lars-Henrik Eriksson (Secretary) [Uppsala U.]
- Alessandro Fantechi [U. Firenze]
- Marie Farrell [Manchester U., online]
- Carlo A. Furia [U. della Svizzera italiana]
- Mario Gleirscher [U. Bremen]
- Stefania Gnesi [ISTI-CNR]
- Cliff Jones [Newcastle U.]
- Joost-Pieter Katoen [RWTH Aachen U.]
- Jeroen Keiren [TU Eindhoven]
- Peter Gorm Larsen [Aarhus U.]
- Thierry Lecomte [CLEARSY]
- Martin Leucker [U. Lübeck]
- Claudio Menghi [U. Bergamo, online]
- Marco Paganoni [U. della Svizzera italiana]
- Luigia Petre [Åbo Akademi]
- Andrea Pferscher [TU Graz]
- Nico Plat [Thanos, online]
- Matteo Pradella [Politecnico di Milano]
- Violet Ka I Pun [W. Norway U. of Applied Sciences]
- Pedro Ribeiro [U. York, online]
- Matteo Rossi [Politecnico di Milano]
- Volker Stolz [W. Norway U. of Applied Sciences]
- Silvia Lizeta Tapia Tarifa [U. Oslo]
- Maurice ter Beek [ISTI-CNR]
- Marcel Verhoef [ESA, online]
- Alexander Weigl [Karlsruhe Institute of Technology]
- Jim Woodcock [U. York]

**1 Welcome and agree upon agenda**

Ana Cavalcanti welcomed the members present. The agenda was agreed upon.

**2 Minutes of the previous meeting**

Minutes of the 2022 AGM and the previous meeting were presented and approved.

**3 Committee activities**

**Book Review Committee:** Matteo Rossi reported on committee activities. Several book reviews are ongoing and some are to be published in FACJ.

**Communications Committee:** No representative was present. Einar Broch Johnsen later contributed a presentation, which is attached to these minutes.

**Industry Committee:** Jeroen Keiren reported on committee activities. Currently the committee works on integrating their web site with the main FME web site, setting up a talk series with people from industry along the lines of the Teaching Committee talk series, and making tool videos. A participant observed that I-day presentations used to be a larger part of

the FM Symposia than they are today, for example, papers were included in the proceedings.

**Teaching Committee:** Luigia Petre reported on committee activities. It has organised the FMTea workshop at the FM'23 Symposium, and is working on the campaign to get Formal Methods in the ACM Curriculum guidelines currently being revised, and has made a proposal for a COST action. The decision on the COST action is expected in May. Luigia asks teachers to contribute to the FM course database which currently has 96 entries.

#### **4 ACM curriculum**

Ana Cavalcanti reported on efforts to contribute to CS2023, the ACM effort to revise the Computer Science curricula guidelines. The curriculum is currently being revised (in a 10 year cycle). The Curriculum Committee does not plan to include FM as a mandatory subject. The knowledge areas of the proposed curriculum are already fixed, so FM can only be included as part of other areas. FME has launched a campaign to make this happen. The Industry Committee is working to get various companies to join the campaign. Ana gave a presentation which is attached to these minutes.

Discussion. One participant commended that according to a source in the US, ACM Software Engineering people seem generally opposed to mathematics, including automata theory, algorithm analysis etc. Another comment was that in the US, Software Engineering is seen as essentially equivalent to "programming".

#### **5 Open Access**

Maurice ter Beek reported on the findings of the FME ad hoc committee on Open Access. ETAPS pays OA fees for its proceedings. It started out by subsidising, but now covers the costs by conference registration fees. CAV has moved to OA remaining with Springer. FACJ has changed publisher to ACM to get OA. Ana Cavalcanti comments that FME right now has plenty of money to subsidise OA.

Some comments and questions from the participants:

- ETAPS pays  $\approx$  €180/paper in OA fees.
- Why should FME stay with Springer and not move to LIPIcs (€60/paper in OA fees)? Ana Cavalcanti replied that we have a relationship with Springer via the FM subline of LNCS. She is the co-editor in chief, and Erik de Vink is the FM representative. Leaving Springer will make that relationship delicate, but that is not per se a reason for us to stay.
- ETAPS has also discussed LIPIcs and a decision is not just about money, but also editorial considerations.
- Increased registration fees due to OA proceedings would hurt PhD students. FM'23 offered scholarships to PhD students which could be a way to soften this.
- Some conferences charge differentiated fees for authors – the difference can be significant. Ana Cavalcanti replied that FME should not charge authors for publication

The consensus was that FME should in any case go ahead with investigating our options to have OA proceedings – there is really no choice.

#### **6 Should the FM Symposium be a yearly event?**

Maurice ter Beek mentions the problems with an  $\approx$ 18 month interval. Since it is a moving deadline, it makes it harder for authors to plan and it is not possible to avoid clashes with yearly events. The way the CORE ranking is set up, events with a longer interval than one year are penalised.

Some comments and questions from the participants:

- Why was the 18 month interval decided on in the first place? Cliff Jones replies that FME initially didn't want to have two organising committees active at the same time. Also, with the Symposium taking place at different times of the year, it does not consistently "block" the same time period each year.
- A disadvantage is that Ph.D. students get fewer opportunities to publish at FM Symposia and meet with the community.

- There are too many conferences with "FM" in their acronym. We could join up with other events, possibly in a similar way that ETAPS does.

Ana Cavalcanti mentioned that the FM Symposium has been invited to join FLoC'26. Having flexible dates makes such collaboration easier.

Some comments and questions from the participants:

- FM participation in FLoC'18 was complicated. There were lots of established rules and procedures that FM had to accept. Maybe we should not join again?
- FME got very little economic profit from FLoC'18.
- In joining FLoC'02, FME had to make a large economical commitment.
- Did the FM Symposium have more attendance as part of FLoC'18? The audience agreed that this was not clear. There were some problems with people leaving the FM sessions when some big event happened in a parallel conference.
- Several people mentioned that FM participation in FLoC'18, and in particular the co-location with CAV, was appreciated from the participant point of view.

#### **7 Date and place of next meeting**

The next meeting will be the AGM. It will be held online on June 15, at 14:00 CEST.

#### **8 Other Business**

There was no other business



# **FME Communications Committee: Report on activities 2022**

Einar Broch Johnsen, Univ. of Oslo, Norway

March 8, 2023

# The Communications Committee

- **Established:** October 2018.
  - **Aim:** to support the dissemination of material about formal methods as well as FME activities.
  
  - [Carlo A. Furia](#),  
Università della Svizzera italiana,  
Switzerland.
  - [Einar Broch Johnsen](#),  
University of Oslo, Norway
  - [Matt Luckuck](#)  
University of Derby, UK
  - [Lina Marsso](#)  
University of Toronto, Canada
  - [Claudio Menghi](#),  
McMaster University, Canada
  - [Pedro Ribeiro](#),  
University of York, UK.
- Role: Carlo** will work on the communications strategy and guidelines for conferences and liaise with board members in charge of conferences.
- Role: Einar** chairs the Communications Committee, maintains the FME website, Twitter account, and LinkedIn group. He works on an overall policy document on communications.
- Role: Matt** will liaise with the Awards Committee, the Book Review Committee, and the Industry Committee. Website integration.
- Role: Lina** is working on webpage for summer schools and dissemination channels for academic positions in formal methods.
- Role: Claudio** will liaise with the Teaching Committee. Claudio has also developed a questionnaire to collect feedback from FM conferences.
- Role: Pedro** is in charge of communications for FME business meetings. Pedro is also in charge of FME's videos and YouTube channel.

# Activities in 2022

- **Standard activities:** liaise with the other committees of FME
- **Video recordings** of keynotes at IFM 2022, FM 2021
- **Publicity plans and social media** for FormaliSE 2023 and FM 2023
- **Communication strategy.** Document in progress
- **FME website:** maintenance and migration
- **FME website:** integration with committee web pages
- **How to disseminate academic positions in FM?**
- **«FM in industry» video:** collab. with Industry Committee

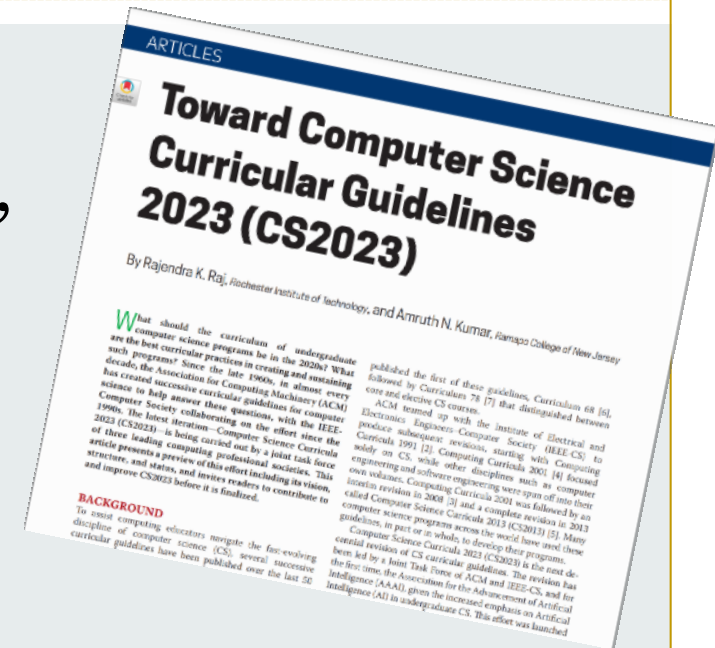




# Background



- Since the late 1960s, in almost every decade, the ACM has created curricular guidelines for computer science, with the IEEE Computer Society collaborating since the 1990s.
- The latest iteration **Computer Science Curricula 2023 (CS2023)** is being carried out.
- ACM, IEEE-CS, and Association for the Advancement of Artificial Intelligence (AAAI)
- Two years of work so far: <https://csed.acm.org/>



# FME efforts



- Brijesh Dongol: committee on Programming Languages
- Message to the membership asking for support
- Message to the FME Fellows
- This special session
- Presence in the ACM SIGBED Conference  
<https://sigcse2023.sigcse.org/>
- Writing white papers

# White papers – Guidance



- Undergraduate education
- Computer Science education
- Any future predictions will primarily focus on the next decade.
- The most relevant prior reports are CS2013, and CS2008.
- **Deadline: end of May**
- Recommended size: 10,000 words + references (guidance)
- Format: FACJ

# To kick start the discussions – suggested titles



## 1. Does every Computer Scientist need to know Formal Methods?

Champion: **Manfred Broy**

**Issue to address:** *“While there is a belief that formal methods are important, and they are growing in importance, we cannot yet state that every CS graduate will need to use a formal methods in their career.”*

## 2. Do we teach Formal Methods, Teamwork, Code Review, or Testing?

Champion: **Emil Sekerinski**

**Issue to address:** *“The FM specialists I have access to have generally been unanimous that core skills like teamwork, code review, and software testing are more applicable for new-grads (regardless of which path they take after school). If you all can give me evidence or even a good story for why FM is more critical than those (or any other topics in SE), I'm happy to bring that to the SE subcommittee to re-evaluate.”*

# To kick start the discussions – suggested titles



## 3. Is Formal Methods just for the safety-critical industry?

Champion: **Maurice ter Beek**

**Issue to address:** *“While Formal Methods is certainly important to a number of industry segments, it is not important to others.”*

## 4. Is the current offer of Formal Methods education adequate?

Champion: **Brijesh Dongol**

**Issue to address:** *“... it would appear that there are some attempts to cover formal methods at the graduate level, often as an elective rather than a required class, but very few undergraduate programs cover formal methods. This seems to strongly suggest that the expert subcommittees on programming languages and software engineering have accurately captured the place of software engineering in the curriculum landscape as it currently exists.”*

# Volunteer to be a co-author



- 5 authors per paper, at least
- The more the merrier
- One paper per author
- Diversity (especially geographical) is important