

# Minutes of the Steering Committee meeting

27 June – 14 July, 2021

Teleconference: Zoom

## SC members present:

Renato Vacondio, University of Parma, Italy (Chair)  
Stefano Sibilla, University of Pavia, Italy (Secretary)  
Ben Rogers, University of Manchester, UK (Vice chair)  
Alex Crespo, University of Vigo, Spain (Webmaster) (only on June 24<sup>th</sup>)  
Xiangyu Hu, Technical University of Munich, Germany (Newsletter editor)  
Angelo Tafuni, New Jersey Institute of Technology, USA (new Webmaster)  
Rade Vignjevic, Brunel University London, UK (only on July 14<sup>th</sup>)  
Nathan Quinlan, NUI Galway, Ireland  
Matthieu de Lefte, Nextflow Software, France  
David Le Touzé, Ecole Centrale de Nantes, France (only on June 24<sup>th</sup>)  
Salvatore Marrone, CNR-INM, Italy (only on July 14<sup>th</sup>)  
Antonio Souto-Iglesias, Universidad Politecnica de Madrid, Spain  
Abbas Khayyer, Kyoto University, Japan  
Pierre Sabrowski, Dive Solutions, Berlin, Germany (only on July 14<sup>th</sup>)

## Also present:

Giuseppe Bilotta, INGV, Italy  
Georgios Fourtakas, University of Manchester, UK  
Fei Xu, Northwestern Polytechnical University, Xi'an, Shaanxi, China

## Specific Issues

### 1. Reflections on New York 2021 SPHERIC workshop

Angelo Tafuni relates about the New York 2021 online SPHERIC Workshop.

The online edition proved to be very successful, with 147 total registrations and an average participation of 90 each day. The Workshop proved also to be successful in linking to SPHERIC the American research community, as there were at least 25 registered participants from the United States. The specific features of the online edition seemed to attract some interest: for instance, the e-lunch was attended by 60 people in the first day, although participation dropped in the following days. A general dissatisfaction has appeared on the use of Bravura as a platform for online workshops.

The Bravura platform will still be online until July 10, 2021, whereas the workshop website will stay online for the foreseeable future. Alex Crespo recalls that the online training day went as smooth as in the normal Workshop editions: this can also be considered a relevant result of the online Workshop.

Among the possible suggestion for the future, Angelo Tafuni includes the possibility to prerecord the presentations even if they are given in person. Renato Vacondio finds that the online discussion at the end of the session didn't work too well, possibly because there was a delay between written questions and answers. Alex Crespo suggests that in for future online events questions may be collected and answered after each presentation.

From the scientific point of view, David Le Touzè observes that the level (possibly because of the two-year period since the last Workshop) was quite high and that the number of new cases to which SPH is being applied increased a lot: he finds that this can be considered a sign of the maturity of the SPH method. Giuseppe Bilotta agrees with this view.

Abbas Khayyer notes that high emphasis should be given (especially to young researchers) to the need of carefully selecting benchmarks, in order to assess the accuracy and convergence properties of their schemes. Mathieu De Lefte says that, from an industrial point of view, a scientific approach should be maintained, and that the contributions by people coming from the graphical methods community should be carefully evaluated.

Regarding the keynote lectures, Ben Rogers finds that the first lecture was very interesting but a bit too far from SPH.

The SC acknowledges the wide participation from the US, which is a relevant result of the online New York workshop: Renato Vacondio will send an official email to maintain links with the research groups in the US, organizing an online meeting and trying to find out joint initiatives with them, such as promoting a one-day online event.

**Action 1:** Send an email to SPH research groups in the US to organize an online meeting

**By:** Vacondio

**Deadline:** September 2021

## 2. Xi'an 2022 SPHERIC international Workshop

Fei Xu relates about the organization of the 3<sup>rd</sup> SPHERIC Asian Workshop in Xi'an, whose official name will be 2022 SPHERIC Xi'an International Workshop.

The Workshop will be held from March 28 to April 2, 2022, in a hotel in Xi'an (China) which offers accommodation and a meeting room with 140 places. The deadline for abstract submission will be set on November 15, 2021, while the deadline for the submission of the final papers will be January 25 or February 1, 2022.

Suggestions for the possible first Keynote Lectures are prof. Wang Dongdong (Xiamen University) and prof. Fu Ling (Hong Kong University). Among the other possible lecturers, Ben Rogers suggests contacting prof. Ha Bui from Monash University. Another suggestion as a keynote speaker may be Aman Zhang (Harbin University)

The Training Day lectures may be given by prof. PengNan Sun (SYSU) and from Chi Zhang from TU Munchen, while the practical lecture may be given by Matthieu De Lefte or by other people from NextFlow, either in presence (if possible) or online with the help of people In Xi'an.

The overall budget for the Xi'an Workshop is 335.000 Yuan (43 k€), which may be reduced to 204.000 Yuan (23 k€) in case the Workshop should be moved totally or partially online due to possible pandemic restrictions. Accordingly, the proposed registration fees will be in the range 2900-3700 Yuan (380-480 €).

**Action 2:** Final program of the 2022 Xi'an Workshp and decision on keynote lecturers

**By:** Fei Xu

**Deadline:** SC autumn meeting

### 3. Catania 2022 SPHERIC workshop

Giuseppe Bilotta relates about the organization of the 2022 Catania Workshop.

The Workshop venue will be the Monastero dei Benedettini (University of Catania), close to the city center and easily reachable by bus. The welcome cocktail will be held at the workshop venue, while the Gala dinner will be held in Palazzo Manganelli, Palazzo Biscari (to be confirmed during the Autumn SC meeting).

The training day will be organized at the “Cittadella Universitaria” which is located outside the city center, and it can be reached by a 20-30 mins trip by bus from the city center.

The speaker for the first lecture of the training day will be Tony Darlymple.

After an initial discussion Ben Rogers raises the issue of not having necessarily a keynote speaker coming from the SC. Rade Vignjevic suggests someone involved in or a theme related to nonlocal vector calculus and its applications to SPH. Renato Vacondio pointed out that the final decision on the choice of keynote speakers will be decided by the Chair of the LOC at a future date.

Antonio Souto-Iglesias suggests looking for local speakers in the Italian CFD community, such as Maurizio Brocchini or Vincenzo Armenio, who are active in maritime engineering and turbulence research. Rade Vignjevic objects that the main motivation for a keynote should be to give new perspectives on SPH, not a matter of national recognition or of budget. Stefano Sibilla agrees with Rade Vignjevic’s view.

**Action 3:** Final presentation of the Workshop with final budget and decisions on venues and keynote speakers

**By:** Bilotta

**Deadline:** SC autumn meeting

### 4. Future SPH Online Workshops

Abbas Khayyer relates about the success of the 2<sup>nd</sup> SPH Online Workshop, held on the Zoom platform on March 29, 2021: it focused on Turbulence and boundary layer and had more than 200 participants.

The 3<sup>rd</sup> SPH Online Workshop will be held on September 6, 2021. The focus will be on Multiphysics and the invited speaker will be Damien Violeau. An invitation will be sent also to the Libersky prize winners of the New York Workshop.

Abbas Khayyer asks whether the future SPH Online Workshops can be included in the regular activity of SPHERIC, as at present they have been organized directly by Manchester and Kyoto Universities. The SC agrees that future Online Workshops can be organized as an activity affiliated to SPHERIC: the organizers will share the organization with the SC, but the SC is not directly involved in the organization and care must be paid in order not to confuse the Online Workshops with the regular SPHERIC workshop.

## 5. Continued SC Membership

Matthieu De Leffe announces that, on June 1<sup>st</sup>, Siemens acquired Nextflow and asks the SC if there is the need to revalidate his position. The SC agrees that Mathieu De Leffe should maintain his position in the SC.

Antonio Souto-Iglesias and David Le Touzè, having been involved in SC for more than 10 years, are now in an academic position where they are not able to take further responsibilities and they can resign from the SC if the SC members think that they are not doing enough to pursue the mission of SPHERIC organization; however, they will maintain their position for the moment.

Renato Vacondio says that all their contributions are welcome, and that the SC should maintain a compromise between new entries and experience.

Rade Vignjevic announced that he will step down from the SC and leave space for a representative of the SPH community at an earlier stage of their career.

**Action 5:** Open a call for a new position in the SC

**By:** Vacondio

**Deadline:** 1-2 weeks before SC autumn meeting

## 6. Update on change of SPHERIC SC Webmaster

Angelo Tafuni is working with Alex Crespo for the transition of the Webmaster position. The SPHERIC website will migrate on the WIX platform, but it will maintain the same structure, pages and colors.

**Action 6:** Migrate the website on WIX

**By:** Tafuni

**Deadline:** end of summer 2021

## 7. SPHERIC Global Seminars

Ben Rogers says that there was a good attendance to the previous seminars and that ideas are welcome for the organization of new seminars.

Angelo Tafuni wants to resign from the Global Seminar committee because of his new responsibility as webmaster. Pierre Sabrowski will join the Global Seminar committee for the organization of the future seminars.

**Action 7:** Meeting of the committee for new ideas for seminars

**By:** Rogers, Sabrowski, Quinlan

**Deadline:** before next SC meeting

## 8. ERCOFTAC Bulletin

Bern Rogers informs the SC that ERCOFTAC asks for a SPHERIC contribution to the ERCOFTAC Bulletin, as the last contribution had been in 2009. He recalls that a theme issue of the ERCOFTAC Bulletin contains typically around 6-10 contributions.

Renato Vacondio suggests selecting 10 contributions from the Spheric workshops, waiting for next year and collecting contributions from Catania and Xi'an Workshops: this would allow the SC to advertise the initiative on the website.

## **Regular Issues**

### **9. Rhodes 2023 SPHERIC workshop**

Georgios Fourtakas relates about the first steps of the organization of the 2023 Rhodes Workshop. He received approval by University of Manchester for organizing an event abroad (Rhodes, Greece). This approval implies legal support and insurance through UM and the possibility to pay the Workshop fees through the e-store of UM.

The congress venue will be either hotel based (Rhodes Palace or Sheraton Rhodes, to be booked) or the National Theatre of Rhodes. This last option will be discussed with the municipality of Rhodes on end of July.

For the banquet, at present there are two possible options: either the Rhodes Palace Hotel or Palace of the Grand Master. The latter needs also to be discussed with Rhodes municipality.

**Action 9:** Finalize draft of budget and of the schedule, banquet and activities

**By:** Fourtakas

**Deadline:** autumn SC meeting

### **10. Summer issue of the newsletter**

Xiangju Hu relates on the contents of the next newsletter issue. Among them, the issue will contain:

Summary of 2021 workshop by Angelo.

Contributions of the three prize winners of the Libersky prize.

Letter to the community of the new chairman.

Short note on the SPH online workshops by Abbas Khayyer and on the Xi'An workshop by Fei Xu

### **11. Student Prize and Abstract Reviews Processes**

After the last workshop, Alex Crespo and Angelo Tafuni suggested to re-evaluate the way in which the marks for the abstract review and the student prize are given.

As Alex Crespo is not present to the July 14<sup>th</sup> meeting, the discussion is postponed to the SC autumn meeting.

### **12. SC Position on journal papers ignoring SPH literature**

Ben Rogers raises an issue about papers on relevant journals, which face typical problems simulated by SPH (such as dam-break) but do not cite fundamental SPH papers. He suggests that SPHERIC should take an action on this.

The SC finds that this issue is related to the limited presence of SPH experts in the editorial boards of the main journals. However, Antonio Souto-Iglesias suggests that a possible initiative may be to write a short paper or an article comparing SPH results with the published ones and sending it to the same journal. Renato Vacondio also agrees with this advice.

### **13. JJM Prize**

Salvatore Marrone relates about the organization of the Joe Monaghan Prize, which will be awarded again in 2022. Papers published in the time range 2013-18 will be eligible and the deadline for nominations will be set on October 30, 2021.

Salvatore Marrone notes that, as the JJM prize is awarded every 3 years, each paper has two possibilities of being awarded. He also proposes to consider the possibility of awarding the JJM prize every two years.

Antonio Souto-Iglesias and Ben Rogers find that it is fair to have two possibilities to nominate a paper, because sometimes it takes time to evaluate the influence of a paper. Regarding of awarding the JJM prize every two years, Ben Rogers finds that 3 years is still the best option.

The SC agrees that advertisement of the JJM Prize should be made through the website as soon as possible and on the next newsletter issue.

**Action 14:** Advertise the deadline for nomination of papers to the JMM prize on website and newsletter

**By:** Marrone, Angelo, Hu

**Deadline:** end July