



Smoothed Particle Hydrodynamics rEsearch and engineeRing International Community

Minutes of the Steering Committee meeting

22nd July 2020

Teleconference: Zoom

SC members present:

Benedict Rogers, University of Manchester, UK (chair)
Renato Vacondio, Università di Parma, Italy (newsletter editor)
Alex Crespo, Universidade de Vigo, Spain (webmaster)
Matthieu de Leffe, Nextflow Software, France
Xiangyu Hu, Technische Universität München, Germany
David Le Touzé, École Centrale de Nantes, France
Salvatore Marrone, CNR-INM, Italy
Nathan Quinlan, NUI Galway, Ireland
Angelo Tafuni, New Jersey Institute of Technology, USA
Rade Vignjevic, Brunel University, UK

Also present:

Giuseppe Bilotta, INGV, Italy (SPHERIC 2022 organiser)

Apologies:

Stefano Sibilla, Università di Pavia, Italy (secretary, via Skype)
Antonio Souto-Iglesias, Universidad Politecnica de Madrid, Spain

Specific Issues

1. SPH Patent Issue

Rogers reports that he received an email from Stefan Adami regarding the existence of patents in China on SPH.

- Hu notes that this is mainly used for academic promotion within China. Le Touzé notes that this will already be considered on a political level by the EU (for much larger software simulation packages than exist for SPH). Rogers notes that this is mainly likely to affect industrial companies operating inside China or consultancy activities taking place inside China.
- de Leffe reports that he has brought this to attention of NextFlow software and will report back to the SC. Rogers will ask the University of Manchester IP (UMIP) for an opinion.

- Given the much larger international scale of the response needed, the SC will form a guidance note that generating patents specialising on specific SPH functionalities inside a code is not recommended for collaboration and progress in SPH.

Action: 1a Rogers to contact University of Manchester IP (UMIP) for an opinion on the information.

By: Rogers

Deadline: Before next SC meeting

Action: 1b de Leffe will report back to SC on response of NextFlow Software

By: de Leffe

Deadline: Before next SC meeting

Action: 1c Produce draft guidance note for PhD students/Postdocs on SPH patents

By: Rogers

Deadline: Before next SC meeting

2. SPHERIC Global Seminars

Rogers proposes that SPHERIC sets up a series of Global Seminars on SPH having attended the JFM online seminars which are regularly attended by 600+ people. All SC members are in support of the proposal.

- Crespo and Quinlan propose a frequency of once per month and is generally agreed as appropriate. Vignjevic suggests that the topics of the talks should be structured such as addressing the SPHERIC Grand Challenges (GCs) or other themes to select speakers. Le Touzé notes that restricting to just the GCs would be too restrictive since these are highly technical and might deter attendance.
- Bilotta raises related issues of training the invited speakers to give a talk with a progression of technical detail and a progression of topics throughout the series. Tafuni suggests we solicit proposals for speakers the SC and that we keep the topics and accessibility as broad as possible to connect to other CFD methods.
- Vacondio suggests that we set up a small committee to formulate the structure, style and other technical details. Rogers, Tafuni and Quinlan volunteer to be on the subcommittee who will aim to organise the seminar series to start end of September.

Action: 2 Global Seminars Subcommittee to meet, define new series of seminars and organise. Subcommittee will report back to SC.

By: Rogers, Tafuni, Quinlan

Deadline: Mid September

3. SPHERIC Missing Minutes

Rogers reports a problem with the minutes from the previous SC meetings were missing until a few days before the SC meeting.

- Rogers notes that generating minutes is important to ensure that actions from previous meetings are not forgotten, are carried out, the SC remains active between meetings and so that the SC retains transparency for SPHERIC Members. Crespo notes that without minutes from previous meetings, the SC wastes time discussing the issues already discussed in previous meetings.

- Rogers suggests a change of minutes format so that all points in the minutes have an action with a named individual to carry out the action.
- Marrone recommends that all actions should also have a clear statement of the action and by what date: “Who, What, When”. Rogers reminds SC members that each set of minutes must be checked and approved before being put online.

Action: 3a Minutes to be produced and circulated to SC members within 2-4 weeks after SC meeting
By: Secretary
Deadline: 2-4 weeks after SC meeting

An action from the SC meeting in Harbin, January 2020, is to confirm the proposal to hold another SPHERIC Workshop in China by the Northwestern Polytechnical University, Xi’an by Prof. Feu Xu to be held in 2022.

- No objection to confirming the Xi’an 2022 workshop was raised. Rogers notes that the response should have been provided by June 2020 after the SC meeting originally scheduled for the NJIT workshop (now postponed).
- Vacondio raised the point that having 2 workshops in the same year might diffuse attendance and success of the existing annual workshop. Both Rogers and Le Touzé note that the delegates in either workshop have difficulties in travelling to the locations of the other workshop, due to visa issues, funds, etc. The Harbin workshop was very well attended by Chinese delegates (~120). Le Touzé notes that it is not yet manageable to merge the two workshops together and alternate the annual workshop between different parts of the world. Bilotta states SPHERIC is not yet large enough for this.
- Crespo notes that the naming of the workshop must not compete with the annual workshops and there is confusion with its description as China or Asia. Rogers proposes that the naming convention used for the Harbin workshop is continued since this does not clash with the main annual workshop.

Action: 3b Confirm Northwestern Polytechnical University’s proposal to hold a SPHERIC Workshop in China.
By: Rogers
Deadline: Once Minutes from this meeting are confirmed.

Tafuni notes that the request for funding from ERCOFTAC to support the SPHERIC Workshop at the NJIT has been successful and will be available for the postponed workshop now scheduled for 2021.

4. SPHERIC Forum Spam

Rogers reports that he received an email from a SPHERIC member reporting that there is a lot of spam and fake accounts on the SPHERIC Forum webpage. Crespo states that this problem has existed for some time and periodically cleans up the Forum webpage. He notes, however, that the activity on the Forum is very limited. Le Touzé comments that we should remove something that is not used. Vacondio states that the SC tried to generate activity on the Forum as an experiment, but this has clearly not worked. Crespo suggested that a different platform could be used, but several SC members stated that they prefer to use other social media, in particular the SPHERIC Twitter feed. The SC agreed unanimously to remove the forum from the SPHERIC Webpage.

Action: Remove Forum from SPHERIC Webpage
By: Crespo
Deadline: ASAP

5. SPHERIC Governance: Transfer of Chair

Rogers notes that the transfer of Chair position to Vacondio should have taken place at the postponed 2020 SPHERIC Workshop in the U.S., but due to the COVID-19 disruption has not taken place. Rogers notes that making a transfer in between workshops is problematic for 2 reasons: (i) it would appear to be done in secret rather promoting transparency, (ii) becoming Chair is an important moment in the career of the new Chair and would be unfortunate to be missed by Vacondio. The SC generally agrees that the decision should be made by Rogers and Vacondio. Neither Rogers nor Vacondio have strong views, but both express a slight preference for the tradition of the public handover at a SPHERIC Workshop to continue. The SC agree that Rogers hands over to Vacondio in person at the next SPHERIC Workshop.

Action: None
By: n/a
Deadline: n/a

6. SPHERIC Governance: New SC Members to replace Violeau and Marongiu

Rogers informed the SC that the call for expressions of interest (Eols) for the open positions on the SC was not conducted because the intention was to combine the process with the SC meeting originally planned for the postponed June 2020 Workshop. The open call will be issued to appoint new SC members by the Autumn 2020 SC Meeting.

- Rogers also notes that both Violeau and Marongiu represented industrial members and that we should aim to appoint new industrial members to replace them. Le Touzé suggests to contact Hermange in Michelin to submit an Eol, and Rogers suggests to contact Pierre Sabrowski to consider submitting an Eol.
- Vacondio requests that senior members of the SC not to step down too rapidly. Le Touzé responds that he will try to delay stepping down by 1 year.
- Vacondio and Hu also suggest that we encourage Eols from international SPHERIC members from Japan and China.

Action: 6 Issue open call for 2 vacant positions on the SC to be appointed by Autumn 2020 SC meeting
By: Rogers & Sibilla
Deadline: Before next Autumn 2020 SC meeting.

7. APS DFD 2020 Conference

Angelo Tafuni brought the American Physics Society (APS) Fluid Dynamics Conference 2020 will now be virtual and encourages members to submit a short abstract. Tafuni notes that this is a good opportunity to raise the profile of SPH in the U.S. and to consider submitting an abstract to other sessions in addition to the special SPH session. Vacondio notes that this is not a conference where the very latest research is presented, but more of an opportunity to give an overview of the developments over the past 5 years.

Action: 7 Interested members encourage to submit an Abstract
By: All
Deadline: Before APS DFD 2020 abstract submission deadline.

8. Benchmark Test Cases

Marrone presented a test case proposed by Matteo Antuono to extend Taylor-Green vortex test case to 3-D. The SC reviewed the description and requested some simple explanatory text in the “Results format” and “Benchmark results” sections.

- From the previous SC meeting, Le Touzé has 2 suggestions to develop for surface tension, de Leffe has 1 suggestion for aircraft ditching.
- Rogers reports that feedback has not been given to the authors of the previous two proposals (Heller, and Stansby) and notes that prompt production of the SC Meeting Minutes would avoid ambiguity in responsibility and timeliness.

Action: 8a Inform Heller and Stansby of feedback on previous proposals, upload to website
By: Rogers & Crespo
Deadline: ASAP

Action: 8b Update 3-D Taylor-green vortex case as above and resubmit to SC.
By: Antuono (communicated by Marrone)
Deadline: ASAP

Action: 8c Prepare 2 benchmarks for surface tension
By: Le Touzé
Deadline: Before next SC Meeting

Action: 8d Prepare aircraft ditching benchmark
By: de Leffe
Deadline: Before next SC Meeting

9. ERCOFTAC Memberships

Rogers informs the SC that he received a request from the ERCOFTAC Administrator to update the membership status of SC members on the ERCOFTAC website. The notification affects: NUI-Galway (Quinlan), TUM (Hu), U-Vigo (Crespo). Rogers will forward the email to the SC Members mentioned and will request them to respond to ERCOFTAC directly.

Action: 9 Inform ERCOFTAC of membership status
By: Rogers --> Quinlan, Hu, Crespo
Deadline: ASAP

10. Autumn Meeting

Rogers notes that in the present circumstances, it is highly unlikely that a physical meeting of the SC will take place in 2020 meaning that the Autumn 2020 SC meeting will need to be virtual again, but longer than the present meeting. Crespo suggests that the meeting be split over 2 mornings to avoid video meeting fatigue and that a reminder is stated in the email a 3rd option is possible by clicking twice to activate the “possible” option.

Action: 10 Organise Autumn SC meeting using Doodle poll
By: Rogers
Deadline: End of September

11.Any Other Business (AOB)

Vacondio notes that the June/July 2020 Newsletter is basically ready. Hu will produce the next one with Vacondio providing guidance on formatting.