

Minutes of the Steering Committee meeting

26th and 28th of June, 2023

Rhodos and Zoom

SC members present:

Renato Vacondio, University of Parma, Italy (Chair)

Ben Rogers, University of Manchester, UK (Vice chair)

Xiangyu Hu, Technical University of Munich, Germany (Newsletter editor) – online 26th June

Angelo Tafuni, New Jersey Institute of Technology, USA (Webmaster) – 28th June only

Alex Crespo, University of Vigo, Spain - online

Matthieu de Leffe, Nextflow Software, France

Salvatore Marrone, CNR-INM, Italy

Antonio Souto-Iglesias, Universidad Politecnica de Madrid, Spain

Abbas Khayyer, Kyoto University, Japan - online

Tom De Vuyst, University of Hertfordshire, UK

Pierre Sabrowski, Dive Solutions, Berlin, Germany – online

Nathan Quinlan, NUI Galway, Ireland

Also Present:

Georgios Fourtakas, University of Manchester, UK

Pengnan Sun, Sun Yet-Sen University, China - online

Chris Long (Los Alamos National Laboratory, USA) – online 26th June

Corrado Altomare, UPC, Spain

1. Discussion of Actions from last meeting

The following actions were discussed at the start of the meeting:

Action 1: Prepare benchmark on monochromatic wave propagation.
This benchmark was discussed and it was agreed to not pursue this further.

Action 2: Prepare benchmarks on Gresho Vortex
Georgios Fourtakas requires more time to complete this. The new target date for completion is the next SC meeting this autumn.

New ACTION: Complete Gresho vortex benchmark
By: Georgios Fourtakas
Deadline: next SC meeting

Action 3: Prepare benchmarks on solid mechanics.
Tom De Vuyst requires more time to complete this. The new target date for completion is the next SC meeting this autumn.

New ACTION: Complete solid mechanics benchmark
By: Tom De Vuyst
Deadline: next SC meeting

Action 4: Contact Pengnan Sun to look into FSI benchmarks

Benchmarks are ready. Angelo Tafuni to publish them on the SPHERIC website.

New ACTION: Upload FSI benchmarks on SPHERIC website

By: Angelo Tafuni

Deadline: next SC meeting

Action 17: Finalize any remaining 2021/2022 minutes to ease Tom De Vuyst take over.
This has been completed, all past meeting minutes have been published on the SPHERIC website.

The following actions were completed:

Action 5: Decide keynote speakers and Training Day talks for SPHERIC 2023 Workshop

Action 6: Suggest keynote speakers and Scientific Committee members to the 2024 US SPH event organizers

Action 11: Announce the possibility to apply for a SC position on the website

Action 14: Organize a meeting of the new committee to review the rubric and abstract template

Action 16: finalize the December issue of the newsletter

The remaining actions will be addressed during the Specific Actions (see section 2 below).

Action 7: Decide dates and venue and announce the 2024 Berlin Workshop

By: Sabrowski

Deadline: 2023 Rhodes Workshop

Status: specific point in this meeting

Action 8: Decide keynote speakers and publish official Workshop Website for SPHERIC workshop in Zhuhai, China

By: Sun

Deadline: spring 2023

Status: specific point in this meeting

Action 9: Assign the 2025 Workshop organization

By: SC

Deadline: Rhodes 2023 Workshop

Status: specific point in this meeting

Action 10: prepare a proposal (topic) for a 1-day SPHERIC event on structures

By: De Vuyst

Deadline: Rhodes 2023 Workshop

Status: specific point in this meeting

Action 12: Identify names for the scientific committee to be published on the website

By: Vacondio

Deadline: Rhodes 2023 Workshop

Status: specific point in this meeting

Action 13: have a first draft as editors in journals - prepare a guidance document on the review of SPH papers

By: Le Touzé, Khayyer

Deadline: Rhodes 2023 Workshop

Status: specific point in this meeting

Action 15: Link the bulletin on the SPHERIC website when published

Ben Rogers reported that the ERCOFTAC bulletin is ready, a link to it needs to be published on the SPHERIC website

New ACTION: Publish link to ERCOFTAC bulletin on SPHERIC website

By: Angelo Tafuni

Deadline: next SC meeting

Action 17: Identify formats for social media and ways to disseminate SPHERIC / Define Slack structure

By: Sabrowski

Deadline: after SC meeting of Nov 2022

Status: ???

2. Specific Issues

New Steering Committee members (Tom and All) and Co-opted members (Renato and all)

Tom De Vuyst provided an introduction stating that 5 Expressions of Interest (Eol) were received for two vacant positions. All candidates met the eligibility criteria. The SC committee agreed that all Eol were of a high standard and that all were suitable to be appointed to the SC. Renato Vacondio stated that unless there was unanimity, we would need to vote to decide who to appoint to the SC. Alex Crespo stated that when deciding on we also needed to justify the SC's decision.

Ben Rogers proposed that the discussion about co-opted SC members be held in parallel to this. The SC agreed.

Ben Rogers proposed that organisers of a SPHERIC workshop will become co-opted members for a period starting two years before the workshop and ending two years after the workshop. Co-opted members will participate in the SC meetings, but will not have voting rights.

The duration of the co-opted period was discussed with Alex Crespo suggesting to limit it to one year.

Renato Vacondio preferred a two year period as this ensures more past experience in the organisation of the SPHERIC workshops within the SC.

The SC committee voted in favour of co-opting workshop organisers as members of the SC for a period starting two years before the workshop and ending two years after the workshop.

The Eol were discussed: the quality of the submitted letters (Ben Rogers), the broadness of the candidates' background (Pierre Sabrowski), any overlap with existing SC members (Matthieu de Lefte).

Renato Vacondio proposed to vote, but Antonio Souto-Iglesias proposed to postpone the vote to give SC members the time to consider their choice. Xiangyu Hu asked if the vote could be anonymous, but Renato Vacondio replied that SC members should be responsible for their decisions. Salvatore Marrone and Ben Rogers also emphasised this point.

The SC agreed to postpone the vote until the second part of the SC meeting on Wednesday 28th of June. Following two rounds of voting on the 28th of June Pengnan Sun and Giuseppe Bilotta were elected to join the SC.

Xu Fei (until 2024), Georgios Fourtakas (until 2025), and Corrado Altomare (until 2027) will be co-opted members of the SC as past and future workshop organisers.

Action: Inform successful and unsuccessful applicants during the Rhodos workshop

By: Renato Vacondio

Deadline: end of Rhodos workshop

Action: Encourage unsuccessful applicants to reapply at the next opportunity.
By: Renato Vacondio
Deadline: end of Rhodos workshop

Action: Enquire with Chun Hean Lee to organise the 2026 workshop in Glasgow.
By: Renato Vacondio
Deadline: end of Rhodos workshop

Status of the SPHERIC newsletter issues (Xiangyu and All)

The status of the July newsletter was discussed. The newsletter is not ready at this stage. Xiangyu Hu stated it was quite difficult for one person to manage all aspects of the publication of the newsletter and that he personally had issues due to his current workload which also. He proposed the SC consider a deputy editor. It was suggested that help could be provided from the Newsletter editors research group. Renato Vacondio stated that an alternative could be that Xiangyu Hu decides to step down from his role as Newsletter Editor.

Xiangyu Hu decided to step down from his role as Newsletter Editor. The SC thanked Xiangyu Hu for his efforts in publishing past SPHERIC Newsletters, which had always been of high quality.

The SC agreed that to publish the July Newsletter on time Xiangyu Hu would support the new Newsletter editor with formatting and layout. The new Newsletter editor will take responsibility for getting all contributions.

Alex Crespo proposed a contribution on an overview of SPH applied to wave energy converters including DualSPHysics applications. Pierre Sabrowski proposed to include Damien Violeau in this effort. The SC decided that this contribution on wave energy converters will not be included in the forthcoming edition of the Newsletter (July edition).

Action: Publish July newsletter
By: Xiangyu Hu, new Newsletter editor
Deadline: end of July

Action: Appoint new Newsletter editor
By: Renato Vacondio
Deadline: as soon as possible?

Update on the 2023 Rhodes SPHERIC workshop (Georgios Fourtakas)

Georgios Fourtakas provided an update on the Rhodes workshop. Everything was ready and no problems were anticipated. In terms of attendance 13 people attended the training day, and the total number of delegates was 92. The total budget will amount to €40k (approx.) and any small surplus will be used to make small improvements during the workshop.

60 abstracts were submitted and 51 of those were accepted (the others were either rejected or were not attending). Conference proceeding will be via a download link rather than a USB stick as was done in the past.

Xiangyu Hu questions whether the SC should be concerned about the drop in number of abstracts submitted. Ben Rogers stated that this was likely a post-covid effect which may take more time to recover from. Georgios Fourtakas responded that although the total number of abstracts was lower, 21 students were presenting. This is more than usual, in indicating that attendance in future workshops may recover further.

Update on the 2024 SPH event in North America (Nathaniel and Christopher)

Chris Long provided an update on the Particle Methods and Applications Conference. This event is to be held in Santa Fe from January 22, 2024 to January 24, 2024. The website is available (<https://web.cvent.com/event/c40e037b-d205-4cea-bd3d-d1c4532a3186/summary>), and the registration and abstract submission section will open in mid-July. Participation is based only on submitting an abstract and presentation, and the target is to have around 100 participants. One of the objectives is to provide opportunities for the SPHERIC community to establish links and collaborations with USA based research groups. The main topic of interest is large deformation problems. Renato Vacondio encouraged SPHERIC members to participate. Ben Rogers highlighted that the first workshop in China was attended by about 50% of the SC.

Update on the 2024 Berlin SPHERIC Workshop (Pierre)

Pierre Sabrowski provided an update on the organisation of the 2024 workshop in Berlin. The proposed dates are 18th to 20th of June 2024, and the venue would be a conference hotel. The options for welcome cocktail and gala dinner were also presented. An initial cost estimate based on 120 attendees was also discussed. Based on this the fees would need to increase compared to previous workshops. Pierre Sabrowski proposed to try and keep the increase in student fees as low as possible and to increase the standard fees to compensate. Early bird registration would be strongly encouraged. Renato Vacondio recommended that in that case the conference website should be published as soon as possible. Georgios Fourtakas commented that the projected price and number of attendees could be problematic. The higher price could lead to fewer attendees rather than an increase to the targeted 120 attendees. Ben Rogers suggested looking into sponsorship for the workshop to help in reducing costs. Other suggestions to reduce costs (Corrado Altomare) were to investigate cheaper options for catering and gala dinner. It was agreed that Pierre Sabrowski would look into reducing the conference fees, and to provide an update on this to Renato Vacondio in late July.

It was proposed to invite Martin Ferran from EDF to deliver a keynote speech at the Berlin 2024 workshop. This will be further discussed in the next SC meeting. It was also suggested (Pierre Sabrowski) to include a panel discussion. The SC was divided in opinion on this suggestion.

Action: Provide update to Renato Vacondio on reducing conference fees for Berlin 2024 workshop.

By: Pierre Sabrowski

Deadline: end of July

Action: Decide on keynote speakers for Berlin workshop.

By: Pierre Sabrowski

Deadline: end of next SC meeting

Update on the 2024 Asian SPHERIC workshop in Zhuhai, China (Pengnan)

Pengnan Sun provided an update on the organisation of the 2024 Asian SPHERIC workshop in Zhuhai. The dates for the workshop will be 17th to 20th of October 2024, with the training day taking place on the 17th and the workshop from the 18th to the 20th of October. The SC agreed with the four keynote speakers proposed by Pengnan Sun, and Pengnan can contact them to formally invite them as keynote speakers.

Renato Vacondio suggested that the conference website should be made public in September 2023 so as not to cause confusion with the regular SPHERIC workshop.

The training day will again make use of the SPHINXSys software and will be supported by someone from Xiangyu Hu's research group. The training day lectures will be on WCSPH, ISPH and SPH applications. Abbas Khayyer suggested a colleague for the delivery of the ISPH lecture. Ben Rogers

was in favour of this suggestion, and it was approved by the SC.

Action: Abbas Khayyer to contact his colleague for the delivery of the ISPH lecture on the training day and communicate with Pengnan Sun
By: Abbas Khayyer, Pengnan Sun
Deadline: not defined

Decide the location for the 2025 SPHERIC workshop (Corrado and All)

Corrado Altomare present a proposal to organise the 2025 SPHERIC workshop in Barcelona, Spain. Universitat Politècnica de Catalunya has a range of possible conference rooms (one has been used in the past for the DualSPHysics user conference). Barcelona has good transport links worldwide and a large hotel capacity. Options for welcome cocktail and gala dinner were presented as well as a draft budget which indicates conference fees would be in line with what had been charged in the past. For the training day delegates would be given access to the Marenostrum HPC facility at the Barcelona Supercomputing Centre.

Ben Rogers asked if Corrado Altomare had a support team to help with the organisation and running of the workshop. Corrado Altomare stated that his PhD students (2 or 3 in 2025) would assist him. Matthieu de Lefte raised a potential issue if the Particles conference were also to take place in Barcelona that same year.

The SC decided to approve Corrado Altomare's proposal. The 2025 SPHERIC workshop will be organised by Corrado Altomare at UPC, Barcelona, Spain.

Georgios Foutakas will share the conference webpage he developed for the Rhodos workshop with Corrado Altomare.

Action: Organise 2025 SPHERIC workshop at UPC, Barcelona, Spain
By: Corrado Altomare
Deadline: 2025

Action: Share the conference webpage developed for the Rhodos workshop with Corrado Altomare
By: Georgios Foutakas
Deadline: not defined

Status of the minutes of previous SC meetings (Tom and all)

All minutes were uploaded by Angelo Tafuni on the SPHERIC website.

Issues on the decision process for future SPHERIC workshops (Ben and all)

Ben Rogers proposed the SC to formalise the process for the approval and organisation of future SPHERIC workshops. This is with the objective to improve transparency for people interested in running a workshop who are not already members of the SC. The SC agreed that this should be done in the form of a short document. Ben Rogers will write this short document outlining the process with input from Corrado Altomare.

Action: Write document outlining SPHERIC workshop process
By: Ben Rogers, Corrado Altomare
Deadline: next SC meeting

1-day Event on structures (Tom and others)

Tom De Vuyst proposed to keep the topic for the 1-day event on structures generic with a draft title “New SPH developments for Solid Mechanics”. The event will be in-person, not online, and talks would be longer (20 to 30minutes) than the 12min of the standard SPHERIC workshop to allow more in depth presentation and discussion. Renato Vacondio proposed to use a process of inviting speakers. It was agreed that for this one day event four to eight speakers would be appropriate. Ben Rogers proposed to split the one day event over two days (starting in the afternoon on day one and concluding at lunchtime on day two) to allow for more informal discussion in the evening. This format, and a target date during early 2025 were agreed by the SC .

Action: Organise a 1 day event “New SPH developments for Solid Mechanics” in early 2025

By: Tom De Vuyst

Deadline: early 2025

SPHERIC Scientific Committee (Renato and All) and Guidance document on the review of SPH papers (Abbas et al.)

Renato Vacondio presented a draft list of proposed members of the SPHERIC scientific committee. The objective of this committee is to provide journal editors with a list of qualified reviewers for journal papers on SPH. Renato Vacondio will contact all potential members to seek their agreement to join this SPHERIC Scientific Committee.

Abbas Khayyer introduced the Guidance document on the review of SPH papers which was drafted by David le Touzé, Ben Rogers and Abbas Khayyer (others?). The SC did not have any comments or suggestions at this stage. Renato Vacondio asked all members of the SC to review the document and provide any comments or questions within the next 4 weeks. Following this review, the document will be published on the SPHERIC website with a target date of 31st of July.

Action: Contact all potential members to seek their agreement to join this SPHERIC Scientific Committee.

By: Renato Vacondio

Deadline: not defined

Action: Review Guidance document on the review of SPH papers.

By: All SC members

Deadline: 26th of July

Action: “Guidance document on the review of SPH papers” published on the SPHERIC website.

By: Abbas Khayyer and Angelo Tafuni

Deadline: 31st of July

Social Media / Slack (Pierre et all)

The SPHERIC slack page was discussed. It was decided that before opening it up to the whole SPHERIC community the SC has to evaluate its benefits. Pierre Sabrowski was asked to present SLACK use at the next SC meeting.

Abbas Khayyer announced that the next SPH Online event: SPH Online V will have as a theme: “SPH and Industry”.

The SC discussed whether the videos of previous SPH Online events should be uploaded onto the Youtube channel. The SC agreed that this should be done. However, every presenter/contributor should be contacted to give their explicit approval. It was also agreed to delay uploading the

presentation for future events to avoid a negative impact on live attendance of the event.

Action: present SLACK use at the next SC meeting

By: Pierre Sabrowski

Deadline: at next SC meeting

Benchmark test cases (Salvatore and All)

The SC agreed that writing a Newsletter article on the new SPHERIC benchmarks should be considered.

Grand Challenges Review/Update)

This item was not discussed

3. Summary of Actions from this Steering Committee Meeting

Action 1: Complete Gresho vortex benchmark

By: Georgios Fourtakas

Deadline: next SC meeting

Action 2: Complete solid mechanics benchmark

By: Tom De Vuyst

Deadline: next SC meeting

Action 3: Upload FSI benchmarks on PSHERIC website

By: Angelo Tafuni

Deadline: next SC meeting

Action 4: Inform successful and unsuccessful applicants during the Rhodos workshop

By: Renato Vacondio

Deadline: end of Rhodos workshop

Action 5: Encourage unsuccessful applicants to reapply at the next opportunity.

By: Renato Vacondio

Deadline: end of Rhodos workshop

Action 6: Enquire with Chun Hean Lee to organise the 2026 workshop in Glasgow.

By: Renato Vacondio

Deadline: end of Rhodos workshop

Action 7: Publish July newsletter

By: Xiangyu Hu, new Newsletter editor

Deadline: end of July

Action 8: Appoint new Newsletter editor

By: Renato Vacondio

Deadline: as soon as possible?

Action 9: Provide update to Renato Vacondio on reducing conference fees for Berlin 2024 workshop.

By: Pierre Sabrowski

Deadline: end of July

Action 10: Decide on keynote speakers for Berlin workshop.

By: Pierre Sabrowski

Deadline: end of next SC meeting

Action 11: Abbas Khayyer to contact his colleague for the delivery of the ISPH lecture on the training day and communicate with Pengnan Sun

By: Abbas Khayyer, Pengnan Sun

Deadline: not defined

Action 12: Organise 2025 SPHERIC workshop at UPC, Barcelona, Spain

By: Corrado Altomare

Deadline: 2025

Action 13: Share the conference webpage developed for the Rhodos workshop with Corrado Altomare

By: Georgios Fourtakas

Deadline: not defined

Action 14: Write document outlining SPHERIC workshop process

By: Ben Rogers, Corrado Altomare

Deadline: next SC meeting

Action 15: Organise a 1 day event "New SPH developments for Solid Mechanics" in early 2025

By: Tom De Vuyst

Deadline: early 2025

Action 16: Contact all potential members to seek their agreement to join this SPHERIC Scientific Committee.

By: Renato Vacondio

Deadline: not defined

Action 17: Review Guidance document on the review of SPH papers.

By: All SC members

Deadline: 26th of July

Action 18: "Guidance document on the review of SPH papers" published on the SPHERIC website.

By: Abbas Khayyer and Angelo Tafuni

Deadline: 31st of July

Action 19: present SLACK use at the next SC meeting

By: Pierre Sabrowski

Deadline: at next SC meeting

