

# Minutes of the SPHERIC Steering Committee meeting (taken by NQ and TDV)

October 2024

Online

## SC members present:

*Renato Vacondio (RV), University of Parma, Italy (Chair)*  
*Ben Rogers (BR), University of Manchester, UK (Vice chair)*  
*Matthieu de Leffe (Mdl), Siemens Digital Industry Software, France*  
*Salvatore Marrone (SM), CNR-INM, Italy*  
*Peng-Nan Sun (PNS), Sun Yat-sen University, Zhuhai, China*  
*Nathan Quinlan (NQ), University of Galway, Ireland (taking minutes for part 1)*  
*Giuseppe Bilotta (GB), INGV, Italy*  
*Abbas Khayyer (AK), Kyoto University, Japan*  
*Alex Crespo (AC), Universidad de Vigo, Spain*  
*Tom de Vuyst (TDV) University of Hertfordshire, UK (Secretary),*  
*Angelo Tafuni (AT), New Jersey Inst. Technology, USA (webmaster)*  
*Pierre Sabrowski, Dive, Germany*  
*Corrado Altomare, UPC, Spain*  
*Xiangyu Hu, TUM, Germany*

## S.C. co-opted members present

*George Fourtakas (Univ. Manchester, UK)*

## Not present

*Day 1 and Day 3: Pierre Sabrowski*

*Day 1: Corrado Altomare, Tom De Vuyst*

*Day 3: Xiangyu Hu*

## 1. Discussion of Actions from last meeting

Action 1: Complete solid mechanics' benchmark by: TDV

Status: This action is ongoing, contact Chun Hean Lee and Xiangyu Hu for support

Action 2: Write document outlining SPHERIC world conference proposal and selection process by:  
BR, CA

It was agreed to convert the Spheric World Congress proposal document into a document that can be put on the website (e.g. powerpoint/block diagram). This will include examples of previous events (type of room, ...). Following a suggestion by NQ it was agreed to change the submission deadline from 2.5 to 3 years prior to event, and to include AC's proposal of adding a requirement for support (e.g. letter) from proposer's institution/school/faculty.

Action 3: Create list of review papers completed by: AK and AT

Action 4: Post minutes of Autumn 2023 meeting completed by: AT

Action 5: Announce SC vacancy at workshop and by email to members, with September deadline completed by: RV

Action 6: Confirm 2026 conference organizer completed by: RV

Action 7: invite proposals for 2027 workshop in China completed by: PNS

Action 8: invite Javier Bonet as keynote for 2025 completed by: RV

Action 9: remove “SPH numerical development working group” and Grand Challenges leaders from GC webpage completed by: AT

Action 10: seek input from the scientific committee on GCs by: AT

Action 11: form marketing subcommittee by: RV, PNS, PS

## **2. Nov 23 minutes**

Minutes of Nov 2023 meeting are now online

## **3. Update on the 2024 Asian SPHERIC workshop in Zhuhai, China (PengNan)**

67 presentations, 23 posters, 180 attendees. Full 3-day programme. PengNan presented an excellent [video summary](#) of the workshop. Shanghai JiaoTong, Xi'an JiaoTong, and Xinjiang Universities are preparing possible future workshops. SC members who attended complimented PengNan on the impeccable organisation and high scientific quality of the event, with notable strength in solids.

A discussion followed on future regional workshops, regional chapters and/or subcommittees, and world conferences. Renato questioned whether SPHERIC was big enough for regional chapters/subcommittees. Renato confirmed the 2026 World Conference will be organised by Dr. Mike Owen in California and proposed the 2028 or 2030 World Conference should be in China. PengNan will encourage researchers in China to attend the Barcelona 2025 conference and apply for open SC positions.

#### **4. Increase the representation of young members on the SPHERIC Steering Committee: document (Nathan).**

Nathan presented a proposal to create SC positions specifically for younger community members, such as Ph.D. students, researchers and industry engineers. Several SC members expressed support for the principle and noted that selection would require care. There was broad support for convening early-career researchers at the 2025 Conference to elect/select representatives. Concerns were raised about confidentiality of SC proceedings and the qualifications of e.g. students to be SC members. Members suggested these concerns must be managed by design of the process. Other suggestions included a two-year term with possibility of one re-election, nomination of Libersky Prize winners, involvement of the early-career cohort in development of the mechanism, and inclusion of 2 or more young members for mutual support. Nathan to join group on SC membership rules (item 3 above) with aim of initiating the process at the 2025 Conference.

#### **5. SPHERIC Scientific Committee vacancy (Renato and Tom):**

5 high quality applications were received. Following a vote using a first, second and third preference voting system (with 5-3-1 points allocated respectively) Guillaume Oger was elected as the new SC member. The SPHERIC Chair did not vote. RV will communicate with the unsuccessful candidates to inform them of the outcome.

#### **6. Grand Challenges Review/Update (GC subcommittee: Xiangyu Hu (GC1), Angelo Tafuni, Ben Rogers, Salvatore Marrone (GC4), Matthieu de Leffe (GC5), and will be led by Angelo Tafuni)**

The subcommittee met once and suggested:

- a) remove the Numerical Development Group and all associated text from the GC webpage;
- b) remove the leaders names from each GC and simply direct any comments to the SPHERIC SC;
- c) update the text about the purpose of the Grand Challenges;
- d) introduce GC keywords to suggest for use in SPH papers, for ease of indexing;
- e) change the GC (remove some, merge some, add others);
- f) add an historical GC classification, so old GCs are not lost.

MdL proposed considering addition of coupling to Finite Volume Methods, AI. AK and TDV stated that for solid mechanics adaptivity is still a GC.

## **7. Update on the NAFEMS Particle Methods Technical Group (RV and BR)**

The inaugural meeting of the Particle Methods Technical Group (TG) is 20/11/24. RV and BR have been invited. It was agreed the MdL and/or PS could be representatives of SPHERIC in this group since this Nafems TG is industry focussed.

## **8. Update on the 2025 SPHERIC world congress (CA)**

CA provided an update on the status of the organisation of the 2025 SPHERIC World Congress. CA confirmed that all venues have been booked and a final decision on Gala Dinner and Cocktail will be taken next week. A request for funding from ERCOFTAC has been sent and is awaiting response. Responses to invitation to join the Scientific Committee have been received with just few responses missing. The publication of Journal Special Issues has been approved. A system to facilitate double blind review of extended abstracts has been set up. The registration and Payment page have been set up. It was agreed that CA will look into the refund policy.

## **9. Discussion on the Extended abstract review procedure for the 2025 SPHERIC world congress, including contributions for the Special Sessions (CA and All).**

It was agreed that the responsibility for assigning reviewers for the abstracts submitted to the Special Sessions lies with the organisers of the Special Sessions (SS). The reviewers must be chosen from the current Scientific Committee. The system used is identical to the standard sessions, and the cut-off point for acceptance of abstracts will be defined on a combined list (special sessions and standard sessions). Since it is difficult to convene the whole Scientific Committee to decide on the cut-off point BR suggested to create a small group to give a recommendation to the SC.

## **10. Update on the 2026 SPH event in North America (RV, AT and BR)**

RV, BR, GF and AT had meetings with Mike Owen related to the organising the 2026 SPHERIC World Congress. It has been confirmed that Mike Owen received approval from LLNL to proceed with the organisation. The location will be in the San Francisco area. A further meeting is scheduled to decide on the event venue, dates and keynote speakers.

## **11. Newsletter issue for Winter 2024 (GB and All)**

GB confirmed he received contributions from PNS, the Libersky student prize winners. No contribution on the Berlin Workshop was received. GB will contact Mike Owen for a contribution on the 2026 workshop. CA confirmed he can provide a more detailed contribution on the Barcelona WC to remind subscribers of the new event format. AK can provide a contribution on the SPH Online event, and BR on the nominations for the Joe Monaghan Prize.

PNS suggested looking into making the Newsletter more readable on mobile phone, this would enable making the newsletter available on WeChat feed. GB will look into producing a pdf and html version of the Newsletter. RV stated we should use the newsletter content in our social media accounts where possible.

## **12. Joe Monaghan Prize nominations (BR and SM)**

For the nominations for the Joe Monaghan Prize it was agreed that SC members are expected to be active in nominating.

## **13. Social media channels (PS and all).**

The current status of the social media channels and management thereof was discussed. PS proposed not to create individual accounts for each event. Following a suggestion by RV it was agreed access right management to the channels will be kept inside the SC and following a suggestion by PS for each channel there will be at least person with access rights as a backup. It was also that the marketing committee would meet before PS creates a marketing plan.

## **14. Benchmarks and Benchmarks web page (SM and AT)**

The Gresho vortex case will be completed in a few weeks time by Matthieu Schaller. It was proposed to add a weakly compressible Taylor-Green vortex case (Antuono), and BR will contact Ha Bui for a Soil Mechanics benchmark.

## **15. Bibliography database:**

The future of the bibliography page was discussed. It was agreed to maintain the link to the SPH Wikipedia page. AK and BR will review the bibliography (papers and books). The special issues (upcoming and published) will be kept in the bibliography. Open calls for Special Issues will be included in the Events page.

## List of Actions of the SPHERIC Steering Committee meeting Oct 2024

### *Part 1: 24 October 2024*

**Action:** PNS to draft proposal for SPHERIC regional (e.g. Asia) subcommittee, including its mission, size, membership, relationship to SPHERIC SC. (deadline: summer 2025 SC meeting)

**Action:** working group of PNS, AK, RV, SM, NQ, with advice from MdL on industry aspects, to draft proposal on changes to SC composition and regulations to better represent global community. (deadline: summer 2025 SC meeting)

**Action:** CA to add a 1hr slot in parallel to the Wednesday SC meeting to convene early career researchers to discuss appointment of an “early career researcher rep”. Quick introduction to this discussion to be given by one or couple of SC members.

### *Part 2: 31 October 2024*

**Action:** BR/CA/AT Convert Spheric World Congress proposal document into a document that can be put on the website (e.g. powerpoint/block diagram). Include examples of previous events (type of room, ...), change submission deadline from 2.5 to 3 years prior to event. Include a requirement for support (e.g. letter) from proposer’s institution/school/faculty.

**Action:** AT to update and restructure bibliography related pages.

**Action:** RV to organise Marketing Committee meeting to be held before 31/12/24 to create marketing plan including plan for social media activities. Include AK in meeting for WeChat related aspect.

**Action:** TDV contact XH and CH to help creating solid mechanics benchmarks.

**Action:** Industrial SC members to encourage contributions from industry/on industrial applications 25 World Congress.

**Action:** CA to look into the refund policy for the 2025 SPHERIC World Congress.

### *Part 3: 6 November 2024*

**Action:** RV to communicate outcome to candidates for the open SC membership.

**Action:** The Grand Challenge sub-committee to present a specific proposal for updating the Grand Challenge page on the SPHERIC website at the next SC meeting in Barcelona

**Action:** Organise a follow-up meeting with Mike Owen to fix SPHERIC 2026 meeting venue, dates and keynote speakers (action on RV, BR)

**Action:** GB to collect more contributions (from CA, BR, AK, potentially Mike Owen) for the next Newsletter by 15<sup>th</sup> of December 2024, and publish Newsletter by 15<sup>th</sup> of January 2025.

**Action:** All SC members to propose nominations for the Joe Monaghan prize.

**Action:** BR extend deadline for submission of nominations for Joe Monaghan prize to align with submission deadline for SPHERIC 2025 abstracts.