

# Minutes of SPHERIC Steering Committee Meeting

**INSEAN Saladeiconsigli – Main building, Rome, Italy, 31/10/2012**

## **Present:**

*Andrea Colagrossi (CNR-INSEAN, Italy)*  
*Ben Rogers (Univ. Manchester, UK, webmaster)*  
*Damien Violeau (EDF R&D, France, newsletter editor)*  
*Xiangyu Hu (Technical Univ. of Munich, Germany)*  
*Jean-Christophe Marongiu (Andritz Hydro, Switzerland)*  
*Stefano Sibilla (Univ. of Pavia, Italy)*  
*RadeVignjevic (Cranfield Univ., UK)*  
*Jan Erik Olsen (SINTEF, Norway)*

## **Apologies:**

*David Le Touzé (EcoleCentrale de Nantes, France, chair)*  
*Moncho Gomez Gesteira (Univ.ofVigo, Spain)*  
*Jason Hughes (Univ. of Plymouth, UK)*  
*Paul Groenenboom (ESI BV, Netherlands)*  
*John Biddiscombe (CSCS, Switzerland)*  
*Nathan Quinlan (Nat. Univ. Ireland, Galway, Ireland, secretary) – but connected via Skype for afternoon session*

## **REGULAR ISSUES:**

New SPHERIC Members + member list update: David Le Touzé still analysing and collecting the data following feedback from SPHERIC members.

**Action: Le Touzé**

## **Newsletter:**

Contributions invited from: Jan Erik Olsen to announce next workshop, Rade Vignjevic (Cranfield), Ben Rogers (Manchester), Damien Violeau (EDF), Matteo Antuono (INSEAN) to appear in December newsletter.

**Action: Violeau**

## **Website:**

1. Update from Rogers: Following the appearance of Spam Account Creation Bots for websites powered by MediaWiki in 2011/2012, University of Manchester WebSupport has recently installed Captcha capability in underlying software which has reduced the problem from 500 spam accounts created per week to 1 per day. This has been completed but has resulted in different browsers displaying the webpage differently with errors. (**Action: Rogers** to fix this in near future). Many other updates, such as YouTube, have been delayed pending successful completion of these security fixes.

2. For Benchmarks page: Andrea Colagrossi suggests that students can create new benchmarks very quickly for simple confined flows using recognised software such as OpenFOAM which can be used to expand the list of potential benchmark cases. Some text to encourage proposals to be added to the website to this effect. Vignjevic suggests a solid mechanics based benchmark can be provided by his student using the template as

recommended by S.C.

3. Vignjevic suggests that a new Wikipedia single page is created to explain about SPHERIC.

**Actions: Rogers**

### **Interaction with ERCOFTAC**

1. Stefano Sibilla reports that post-facto funding from Ercoftac has been authorised and this can now be put towards the funding of 8<sup>th</sup> SPHERIC Workshop in Trondheim.

**Action: Sibilla& Olsen**

2. For forthcoming workshop, Le Touzé to formally request funding from Ercoftac before end of 2012. Stefano Sibilla notes to make sure Ercoftac have received funding request (i.e. that faxes are not lost), recommendation: keep all requests by email.

**Action: Le Touzé**

3. Sibilla also notes that Extra Funding of €2000 is also available from Ercoftac to support attendance at Ercoftac events (not for SPHERIC workshop). Le Touzé to submit formal request and act as “Banker” with account in France.

**Action: Le Touzé**

### **Bibliography database**

1. Duplication noticed by Rogers with multiple entries for same papers on CiteULike. Submitters to be notified individually.

**Action: All**

2. The activity of Antonio Souto Iglesias is noted as positive keeping the database updated.

3. BibTex file hosted on SPHERIC Website is out of date. Recommendation is to update this once per year.

**Action: Quinlan**

### **2013 WORKSHOP UPDATE**

1.SPHERIC 2013 now top result in Google.

**2. Topics:**Viroleau suggests rearrangement of Alternative Formulations to Modified SPH and Other Particle Methods. Rogers suggests using topics of Theory and Numerical Aspects to be expanded to encourage submission of Abstracts on this theme associated with the Theory Working Group headed by Viroleau & Vignjevic.

**Actions: Olsen**

**3. Fees& Funding:**Lengthy discussion on appropriate level of fees ends in general agreement that Hamburg fees should constitute an Upper Bound on fees. In comparison with other events of similar size and duration, fees are similar. Olsen notes that registration and submission rule should be 1 fee/paper and no person can present more than one paper.

SINTEF is a guarantee of industrial funding in the potential absence of other sponsors.Olsen to finalise provision budget following cost minimisation suggestions of S.C. The restrictions of costs in Norway being prohibitive are noted as potential issues.

**Action: Olsen**

**4. Abstracts and Workshop Scientific Committee:** Scientific Committee to include Steering Committee members plus those who have shown interest such as Monaghan & Das. Email to be sent to Scientific Committee members BEFORE abstracts to confirm and ensure participation. Colagrossi suggests use of an online Excel spreadsheet with random anonymous reviewing to ease collation of reviews. Viroleau suggests facility to communicate reviewers' comments/suggestions to Authors to improve quality of final paper, e.g. to help make link of non-SPH methods to SPH. Jean-Christophe Marongiu suggests use of Intermediate status of reserve papers discussed to counter effect of author withdrawal – final decision is to keep with current process of only accepting number of abstracts with sufficient

allocated slots. Violeau notes that paper Template should be checked for spelling of "Introduction".

**Actions: Olsen**

**5. Format:** Sibilla & Rogers note that during the final session of the final day of 2012 Workshop, there were still 81 delegates in attendance. The new scheduling of Tues-Thurs (instead of Wed-Fri) is suggested to be the main reason for this. Committee is in favour of 'Prato Style' with each session consisting of 4x13 minute presentations + 13 minute group discussion. Olsen notes this makes scheduling more difficult, but Committee thinks 'Prato Style' was an optimised format.

**Action: Olsen**

**6. Student Papers:** noted to make scheduling really difficult in previous workshops to award Libersky prize by end of 2<sup>nd</sup> day. Colagrossi suggests Reviewers' marks are collated during final break on final day to ease scheduling and Libersky Student Award is made at the end of final session or final break.

**Action: Colagrossi & Olsen**

**Discussion Sessions:** Committee members observations of these were mixed with discussion dominated by only a few individuals, while format of discussion sessions at 2<sup>nd</sup> workshop in Madrid may have worked better (room layout helped). A good chairperson is noted to be essential. Main suggestions are that (i) if there is sufficient space in the Schedule that the discussion sessions should be repeated, (ii) Scientific Committee members suggest topics for discussion following review of Abstracts, (iii) Possible topics include (a) use of SPH within real industrial projects lead by SINTEF, e.g. bubbly flows, (b) How to address key issues troubling SPH currently and move SPHERIC forward with the Steering Committee providing leadership as suggested by Vignjevic.

**Action: All**

**7. Keynote Lectures:** Both invites have accepted (Violeau & Price). Price is planning to be in U.K. at same time as workshop and will not require travel expenses to and from Australia. Violeau suggests his talk is very technical and is better suited to 2<sup>nd</sup> day.

**8. Training Day:** is to be placed *before* the Workshop as previously, and Rogers suggests to try to keep the registration fee for the Training Day to €50 to encourage participation, particularly from students. Morning Session: Lectures: Introduction to SPH (to be given provisionally by Rogers), Specialist Lecture: Flows with Rigid Bodies to be given by Colagrossi. Following withdrawal of John Biddiscombe from SPHERIC, Rogers suggests that the Visualisation session in the afternoon can be covered by an extension of the DualSPHysics practical session by the SPHysics team along with a "create case from scratch" proposal of Alex Crespo (University of Vigo). Olsen notes that provision of PCs not finalised.

**Actions: Olsen, Rogers, Colagrossi, Crespo**

## **2014 WORKSHOP**

(location and organisers being kept private to Steering Committee until 2013 Workshop Dinner) Venue and main supporting organisations confirmed. Dates to be confirmed.

### **New item for Suggested Agenda**

Vignjevic suggests a repeating item on the agenda should be "how the Steering Committee can provide guidance and move SPH and SPHERIC forward". Discussion is related to Working Group on SPH Theory headed by Violeau & Vignjevic. Rogers notes that when SPHERIC was first formed, its purpose was to drive SPH forward and that this should be continued.

**Action: All next autumn Steering Committee meeting**

### **Membership of Steering Committee**

1. End of John Biddiscombe's S.C. membership: The Committee is sorry to accept John's resignation and notes his substantial contribution over many years. Thomas Rung to be approached to become permanent member of Steering Committee having expressed previous interest.

2. Other Members: Souto Iglesias to be approached as another member having also expressed interest in S.C. membership. Le Touzé to approach non-active members on a case-by-case basis to request clarification of future membership.

**Actions: Le Touzé**

### **Validation Workshop**

Violeau notes that he has no time to organise a special session for Benchmarks in time for 2013 Workshop. There are no other suggestions on this topic.

### **Discussion of Meshless Method Journal Proposal**

Following informal enquiries via Rogers, interest from other researchers active in meshfree methods (XFEM, etc.) is noted with some encouragement from Springer that with current publication trends, Meshfree/Meshless has enough potential for a new journal. Suggestions solicited from Prof. Bordas at University (XFEM expert) of Cardiff suggests extending to other areas that are multi-disciplinary such as applied mathematics and computational mechanics.

S.C. agree that the journal title must be accurate representation of intended content, but the title should be chosen once scope of journal has been decided. Suggested next steps: (i) scope to be rewritten by native English speakers (Rogers & Quinlan) to include suggestions of Bordas, (ii) Create a list of potential journals titles, (iii) Scope & Potential titles to be sent to potential editorial board members suggested by all committee members, (iv) Following feedback, Le Touzé to approach Springer & Elsevier BEFORE end of 2012, (v) Aim is to have first edition as a special edition following 2013 SPHERIC Workshop.

**Action: Rogers & Quinlan, then All, then Le Touzé**

Vignjevic notes that all S.C. members must make referencing papers in any new journal created a priority.

### **Workgroup on SPH Theory**

Violeau and Vignjevic note no progress to date following Violeau's initial email to all SPHERIC members. Suggestions are: (i) a 1-day workshop in Feb/March 2013 to be held in Cranfield with prior meetings between Violeau & Vignjevic to establish key issues, agenda and potential delegates, (ii) from 2013 onwards, have similar regular 1-day workshops the day after S.C. meeting, (iii) use 1<sup>st</sup> 1-day workshop as the basis of a discussion session at 2013 Workshop.

**Action: Violeau & Vignjevic**

### **Other Business:**

Colagrossi notes that CNR have given an ISBN number for the SPHERIC 2012 Proceedings. Colagrossi to send announcement email to all delegates.

**Action: Colagrossi**