

COST Action CA16218

Action Title: NANOSCALE COHERENT HYBRID DEVICES FOR SUPERCONDUCTING QUANTUM TECHNOLOGIES

Minutes Management Committee Meeting GP4 22nd of February 2021 (Remote meeting - via Zoom)

1. Welcome to participants

The meeting starts at 10h00. The Chair of the Action, Hermann Suderow opens the meeting and welcomes all participants. This is an exceptional online MC meeting forced by the confinement circumstances affecting all European countries due to the coronavirus outbreak.

The reason for organizing this 4th online meeting shortly after the previous online meeting held on the 21st of December 2020 is that the Action Scientific officer has recently informed the Action Chair that the project duration can be extended until the 31st October 2021, but probably not more than that. A new contract as well as a Work and Budget Plan needs to be prepared and submitted in the next few days taking this new situation into account.

In addition, the Action Scientific officer has recently requested the Action Chair to submit as soon as possible and no later than 25/02/2021 top-up requests for the Action including:

- Detail of new activity(s) requested, prioritised. It is possible to either adding a new networking tool (e.g. additional MC/WG meeting), or increasing the size of an existing networking tool (e.g. additional STSMs and ITC Conference Grants, increasing the number of WG member reimbursed for a planned meeting, ...)
- Detail of extra budget needed for every requested extra activity
- Description of the COST policy contribution / Action objective contribution

Therefore, a new MC meeting is needed to organize in detail the Grant Period Activities.

2. Verification of the presence of two-thirds of the Participating COST Countries or, if applicable, a quorum

29 participants are present in the meeting. More than 2/3 of the country representatives of the Action attended this 7th Management Committee meeting. Therefore, the quorum was achieved. The decisions taken during the meeting and the issues discussed are reported in these minutes and will be sent to all MC members for approval.

3. Adoption of agenda

The meeting participants agreed to adopt the meeting agenda sent by the Action Grant Holder via email

on the 19th of February, 2021, where the main points for discussion were also highlighted.

There were no pending issues from last meeting.

4. Update from the Action Chair and Grant Holder

- a) **Status of Action:** Start and end dates of Action. Information about recent discussion with the Scientific officer: Possibility to extend the project duration by 6 months (until April, 2022) is not available. The only possibility is to extend the project until the 31st of October. The Science Officer of COST informs that it is unlikely that other possibilities open up. A new Work and Budget Plan needs to be prepared and submitted in the next few days.

The extension of the project duration is unanimously accepted by the MC.

CSO approval: 23/06/2017
Start of Action: 18/10/2017
End of Action: 18/10/2021 (At present)
Duration: 4 years
Parties: 36

GP 1: 18 Oct 2017 – 30 April 2018
GP 2: 1 May 2018 – 30 April 2019
GP 3: 1 May 2019 – 30 April 2020
GP 4: 1 May 2020 – 31 Oct 2021

b) Action budget status. Information and planning of forthcoming events.

After discussion with the Scientific Officer at COST, the Chair informs that:

- To minimize the risk for underspending in this grant period due to the absence of large in-person meetings, the use of available instruments needs to be maximized. This includes instruments widely used by the Action participants, such as STSM and ITC conference grants, as well as charges for publication with the results of the Action.
- STSMs need to be fostered until the end of the project. In the new budget proposal, the amount available for STSMs has been increased considerably, as this is a quite flexible, easy to be accomplished target. 3 STSMs accounting for €7.300 are currently finished or ongoing. The Chair proposes to set as an objective to have at least 5 more of about 2000 € each before 31st October. The proposal is accepted by assent.
- The same applies to ITC conference grants, as these can still be used for Virtual meetings. The information has been updated on the project webpage. The Chair of the Action informs specifically about two conferences taking place soon, where ITC can be granted: The APS March meeting and the VORTEX meeting 2021. Regarding the ICSM2020/2021, it will be soon decided whether it will go online or be moved to October 2021. In this case also ITC conference grants will be available.
- The Chair proposes that the funding of open access (OA) publications is also promoted. The OA committee members (Annica Black-Schaffer, Chuan Li, Simon Bending and Szabolcs Csonka) will select the publications to be funded, based on the achievement of the objectives of the Action. These

must be co-authored by Action Participants representing at least 3 different participating full COST member countries. The Chair of the Action explains the procedure to follow on this aspect.

- The Chair of the Action highlights that the meeting scheme needs to be modified to maximize hybrid and online interactions considering the evolution of the pandemics. Apart from the meeting to be organized in summer in Slovakia, which was planned previously, other hybrid meetings are currently being arranged.
- For the meeting in Slovakia, the Local organizers mention that several possibilities are currently being considered to enable Slovakian and close-by colleagues attending the meeting and others joining online. Final dates and organization details will be communicated in the following weeks (the meeting will start on 28th of June and end 2nd July).
- The Chair of the Action explains the three additional hybrid meetings that are currently being arranged: One to be organized in Italy by the Vice-Chair of the Action, Francesco Tafuri in October (12-13 October), one to be organized by German and Austrian participants (Dieter Kölle, Wolfgang Lang and Oleksandr Dobrovolskiy) likely on the 10-12th of May on Nanostructures and one to be organized in France (Javier Villegas and Alexander Bouzdine) in September on Hybrid Materials. The final dates for all meetings will be announced no later than 2 weeks after this meeting.
- In addition, fully online half-day mini-workshops are also being organized. These have been designed with an agile format consisting of 25+5' and 15+5' talks (only by invitation) and break-out session for discussions between speakers and poster presenters. These will have invited speakers chosen by the Committee of the Action on a particular theme. An important aim of this initiative is to provide young researchers for an online framework where they can continue building a strong curriculum. As such, we particularly welcome the participation of young students, just for hearing talks and/or for presenting a poster. The Chair of the Action requests the MC to actively propose themes and speakers for this activity. The first mini-workshop will take place at the end of March (25th of March) with subject "Towards strong correlations in van der Waals heterostructures and 2D materials", organized by Yonathan Anahory and Milorad Milosevic.
- Afterwards, the Chair of the Action explains that an hybrid School will be organized in Madrid in October, at the end of the Action, from 18 to 22 October 2021. The organizing committee will start immediately with preparations.
- Finally, as briefly introduced before, the Action Scientific officer has recently requested the Action Chair to submit as soon as possible and no later than 25/02/2021 top-up requests for the Action, as COST has some extra budget for supporting additional activities of the running Actions during this Grant Period. The Chair of the Action then makes some suggestions: e.g. a Newsletter with a journalist commenting a selection of our papers in the form of interviews to main authors, Video "women in superconductivity", organizing a hybrid meeting with another COST Action held in Madrid (attosecond physics, attochem), face masks with the logo of the Action sent to organizers of each hybrid meeting, Book and video for children on superconductivity, etc. And asks for further input. Several volunteers offer themselves to work on these aspects. Pertti Hakonen informs about the <https://quantumgarden.net/> initiative. The Chair of the Action requests for additional suggestions in the forthcoming days.

All these proposals are accepted by the MC. The WBP will be modified accordingly to include these proposals.

c) Short Term Scientific Missions (STSM) and ITC conference Grants: review of completed reports



and new applications

The STSM committee has granted two STSMs during this period, one to a female going to Madrid, one of a male going to Sweden. The discussion about promoting the STSM continues and the MC agrees to promote the use of this instrument as far as possible. The Chair acknowledges the work of the STSM committee.

d) Dissemination actions – Open Access Publications

There has been one application for open access publications. Mentions to initiatives to write reviews, roadmaps (as for example a special issue in Applied Sciences, organized by Vladimir Fomin) are made and will be fostered by the working groups of the Action.

5. Implementation of COST policies on:

- a) Promotion of gender balance and Early Career Investigators (ECI)**
- b) Inclusiveness and Excellence (see below list of Inclusiveness Target Countries)**

The Chair remarks the need to monitor carefully the gender balance and early career investigators support of the Action. The Chair informs about the outcome in the STSM of this period. Further discussion will be made in the next meeting.

6. Follow-up of MoU objectives: progress report of working groups

The Chair reminded the Action objectives and WGs based on the Memorandum of Understanding as well as the management structure.

7. Scientific planning

a) Scientific strategy

a.1) Next Action. The participants agree to prepare a new proposal for a new Action in the next collection date of COST (29th of October 2021). Future meetings will be arranged to organize this.

a.2) Book of the Action. Publishing a book is also a very interesting activity that will serve to compile and report many of the results of the action, and which will therefore contribute to leverage its impact. The Chair and Vice-chair of the Action will discuss about how to structure and organize it and will present the outcomes of these initial discussions to the rest of the members in the forthcoming MC meeting for further details.

b) Long-term planning (including anticipated locations and dates of future activities)

- Half day online workshops, approximately one each month.
- Online meeting Vienna, 10-12 May 2021.
- Hybrid meeting Slovakia, 28 June – 2 July 2021.
- Hybrid meeting Paris, TBA.
- Hybrid meeting Naples, 12, 13 October 2021.
- Hybrid meeting Madrid, 22-28 October 2021.

c) Dissemination planning (Publications and outreach activities).

The Chair reminds that publications acknowledging the Action are referenced in the webpage of the Action.

8. AOB

Main themes for discussion were risen in previous points.

9. Location and date of next meeting

The next online MC meeting will be held in approximately one month, to discuss the ongoing meeting agenda, possible issues about the extension of the duration of the action and on the possibility to carry-over the unspent budget of the period are clearer.

We aim to hold a physical or hybrid MC meeting will be held during the meeting in Slovakia in June 2021.

10. Closing

The MC Chair thanked the participation of all the MC members and closed the MC meeting at around 11h30.

[Meeting ends]

List of Attendants

Country	Firstname	Lastname	Position	Institution
IL	Yonathan	Anahory	MC Member	The Hebrew University of Jerusalem
FR	Alexandre	BOUZDINE	MC Member	University Bordeaux
UK	Simon	Bending	MC Member	University of Bath
SE	Annica	Black-Schaffer	MC Member	Uppsala University
RO	Ioan Adrian	Crisan	MC Member	National Institute For Materials Physics
AT	Oleksandr	Dobrovolskiy	MC Substitute	University of Vienna
MD	Vladimir	Fomin	MC Member	Moldova State University
ES	Irene	González	Grant Holder	Universidad Autónoma de Madrid
TR	Ali	Gencer	MC Member	Ankara University Center of Excellence for Superconductivity Research
DK	Jean-Claude	Grivel	MC Substitute	Technical University of Denmark
ES	Isabel	Guillamon	MC Member	Universidad Autonoma de Madrid
FI	Pertti	Hakonen	MC Member	School of Science
SI	Abdou	Hassanien	MC Member	Jozef Stefan Institute
PT	Gleb	Kakazei	MC Member	University of Porto
IL	Beena	Kalisky	MC Member	Bar Ilan University
AT	Wolfgang	Lang	MC Member	University of Vienna, Faculty of Physics
RS	Nenad	Lazarevic	MC Member	Institute of Physics Belgrade
FR	Brigitte	Leridon	MC Member	CNRS
NL	Chuan	Li	MC Member	University of Twente
BE	Milorad	Milosevic	MC Member	Faculty of Sciences
ME	Jovan	Mirkovic	MC Member	Montenegrin Science Promotion Foundation PRONA
BG	Todor	Mishonov	MC Member	Institute of Solid State Physics
EL	Evagelia	Moshopoulou	MC Member	National Center for Scientific Research "Demokritos"
ES	Anna	Palau	MC Substitute	Institut de Ciència de Materials de Barcelona (ICMAB-CSIC)
SK	Peter	Samuely	MC Member	Institute of Experimental Physics, Slovak Academy of Sciences
TR	Cem	Sevik	MC Member	Eskisehir Technical University

BE	Alejandro	Silhanek	MC Member	Université de Liège
ES	Hermann	Suderow	MC Chair	Universidad Autonoma de Madrid
IT	Francesco	Tafari	MC Vice Chair	Università di Napoli Federico II
PL	Andrzej	Zaleski	MC Member	Institute of Low Temperature and Structure Research, Polish Academy of Sciences