# Meeting minutes – PETER status meeting 19. 3. 2021

Božena Čechalová, Tomáš Šikola, Joris van Slageren, Lorenzo Tesi, Doiminik Bloos, Martin Konečný, Petr Neugebauer, Martin Hrtoň, Zdeněk Nováček, Monika Larruskain, Alisa Leavesley, Rainer Hillenbrand, Tomáš Šamořil, Vlastimil Křápek

14:00 – 15:45

**Planned agenda:**

1. Workshop in San Sebastian - NanoGune - evaluation

2. Project management and admin – BUT

3. Presentations/Publications - USTUTT/all

4. Progress in PE EPR spectroscopy experiments/simulations – USTUTT/BUT

5. Present state on testing of AFM in Stuttgart – USTUTT (M. Konečný)

6. Present state in fabrication of probes – BUT/NanoGune

7. Samples for PE EPR spectroscopy and microscopy – Stuttgart /BUT

8. Signal modulation issue – TK/USTUTT

## 1. Workshop in San Sebastian - NanoGune - evaluation

 MGL: the videos have been recorded, she will send them to Božena, also presenters need to be contacted about permission to make them public

## 2. Project management and admin – BUT

BČ: PO has been made aware about the results of the Steering Committee meeting (not extending the project anymore). Following is the message from PO copied from the PP:

I acknowledge reception of your message and the decision to not go for another extension of the project, mainly due to available resources left (project extended already for 6 months).

**With respect to the due deliverables for this final period, please try to complete them on time including all crucial data and conclusions. If there is a need for few weeks more to complete them, I would exceptionally agree with it.** The point is to submit all deliverables crucial for the final project review before the review process starts. **I have still not decided when we will have the final review, but this decision surely will be taken at the latest by the end of April to allow you properly plan the last weeks of works.** Let's be in touch on the developments within the project, so we can adjust things, if necessary, to allow maximum flexibility in these challenging times.

Good luck!

BČ: What’s the status on the deliverables? – TŠ: mid-next week they will be ready

## 3. Presentations/Publications - USTUTT/all

LT: Paper in Nature Comm is still under evaluation of the editor, might stay so for the next 4 weeks

JvS: another group (Schnegg) seems to be working on the same, we need to get this out

RH: does anyone know Schnegg? – Alisa knows him (TK ships for them) and can have an informal chat on Monday

LS+MH are working on a simulations paper, MH needs to get out a paper first on the method

## 4. Progress in PE EPR spectroscopy experiments/simulations – USTUTT/BUT

LS: (see presentation – results with MH)

HFEPR measurements of NiFe discs – easy experiment

Test of the heterodyne source/detector at HFEPR quasi-optic setup tested on sample Mn12ac

TŠ, RH, MK + LT discussion about discs samples

RH: with many disks you will have too much background. Having only one disk apparently makes it impossible to find it once the sample is mounted. Now they are discussing making some marks (TŠ, MK) on the substrate that you can use to find the single disc on the substrate.

TŠ: we will resolve this issue (of preparing a sample with marks, with Peter Kepič)

AL: there are extra ports to fit in an optical microscope to navigate to the sample, how would that work? – RH: you could eventually use a parabolic mirror

## 5. Present state on testing of AFM in Stuttgart – USTUTT (M. Konečný)

MK - Presentation: measurements of amplitude vs distance curve

RH: discussion about that, modulation (and demodulation) of the signal

MK – results on test of a new modulation coil – much less heating; it’s much better performance

MK will call Alisa next week about further evaluation

## 6. Present state in fabrication of probes – BUT/NanoGune

ZN: making a new batch of cca 10 of plasma FIB shaped probes by the end of April, will be sent to Nanogune (Elisaveta) for polishing.

RH: Lisa will probably not be able to continue work on PETER after the end of the project; so we need to make as much as possible

ZN: at the end of April he will discuss with Lisa how many probes she can manage before the project end

TŠ: can Elisaveta assist with the deliverable about the probes? About the polishing (photos) – also the know how about polishing needs to be shared with us to be able to continue making them after the end of the project

## 7. TK update

AL: TK had ransomware attack and the servers are down, reconfiguring is taking long – everything is backed up but it will take time

## 8. General discussion

RH is able to offer consultations (online) with MK or anyone whenever there’s an issue

Some experiments could be done with videolinks – to consult in real time (streaming?)

**Next meeting: 29. April 14:00**