**Meeting minutes PETER Webex meeting**

27. 08. 2020

11AM (GMT+2)

Attendees:

Alisa Leavesley (host), Tomáš Šikola, Božena Čechalová, Jan Čechal, Richard Wylde, Kevin Pike, Rainer Hillenbrand, Elizaveta Nikulina, Jiří Spousta, Michal Pavera, Zdeněk Nováček, Petr Neugebauer, Joris van Slageren, Lorenzo Tesi, Martin Konečný, Martin Hrtoň, Petr Dvořák,

Agenda:

FET Innovation Launchpad proposal – should be submitted by Oct 2

Lorenzo: Progress on PETER (presentation)

* Testing of the EPR mode in the new apparatus – the first results seem nice and promising, Lorenzo is just finishing a paper and will send it around

Martin Hrtoň: simulations

* He was finishing his PhD thesis directly linked to the PETER project
* Partial calculations done by Lorenzo and will be resumed by Martin

Elisaveta Nikulina: probes fabrication (presentation)

* Discussion: Zdeněk Nováček – Tomáš Šikola
* Problem: to speed up polishing of tips, it might be done at TESCAN by Xe FIB, but it is not easily accessible (waiting for machine time) – Reiner informed that the polishing can continue at Nanogune without any problem (accepted)
* Martin Konečný is using a similar probes to those being fabricated , glass fiber tips, only the curvature of the apex is different and metallic antenna is missing – might be affecting resolution (concern of Rainer)
* Zdeněk: FIB-fabricated probes were tested in Brno and they do work in the SPM setup despite being a bit bland
* Reiner wants to decide on the final tip radius to be used and optimise them for optical measurements as best as possible
* Tomáš Šikola – we should probe possibility to fabricate tips of different diameters

Martin Konečný: Progress on the SPM unit (presentation)

* Works on PETER sinnce August
* Started first tests with standard calibration samples and commercial probes
* Encountered problems with measurements at low temperatures (77K) – there’s a pump that causes vibrations (and noise in signal)
* Rainer is pointing out the bluriness of the images – could be caused by the tip bluntness – Martin explains that due to vibrations caused by a pump, the tip might not be in full contact with the sample surface

Joris van Slageren: USTUTT news on sample preparation – a student that was working on it had to leave due to Covid

Jan Čechal: BUT progress on sample preparation (presentation)

* A BI FeO3 sample was sent to NGU, measured by Elizaveta (presentation)
* Sample was done by atomic layer deposition and needs to be thicker
* BUT will try to provide more

Božena Čechalová – short list of tasks on management/dissemination

* Agreed to push back the overdue deliverables for another 3 months (until the end of March)

T. Šikola: to consider visit to Stuttgart in September 14 – 15 (depending on the progress in experiments?

Alisa Leavesley – FET Innovation Launchpad

* Another meeting to discuss the budget on Friday **Sept** **4** 2pm (european time)