Minutes of PITZ Physics Seminar, 2019-03-14

Project: PITZ
Participants: F. Stephan, H. Qian, M. Gross, G. Shu, G. Vashchenko, J. Good, G. Loisch, A. Oppelt, H. Shaker, M. Krasilnikov, P. Huang, S. Lal, I. Isaev, N. Aftab, R. Niemczyk, G. Georgiev, O. Lishilin (joined later)

1) Agenda

a) Talk by Georgi Georgiev: Talk on noisecut
b) AOB
c) Highlights of W. Wurth, presented by F. Stephan

2) Results:

1. Explanation on how different image filters work (H. Huck, emcalc filter, SNR and median filter)
2. Proposal for future noise cuts (Pareto-based)
3. Starting point was defined: Namra will take over the stuff in the frame of her thesis
4. Gregor, Pengwei and Raffael should give several datasets to Namra, so she can test in future the noise cuts she develops in order to crosscheck
5. Comparison of sumOfPixel during a solenoid scan for different noise cut functions
6. Scaling of High1.Scr1 camera (telescope setup) must be off by 20 % (from comparison of the beam position for different steering with other screens)
7. Discussion of idea of W. Leemans: Use an dielectric crystal and a Laser in order to measure of the RF power in the gun
    a. Done at KIT? Gregor will check it.
    b. Use the cathode as dielectrical material and take the reflection of the UV Laser.
8. Resp. Person and SSB have to be announced to the DESY guards. Also the guards have to know if someone is around or not. Anne generated an email list for this. Use it.
9. Also: Announce the operation (if unplanned) as early as possible and as few times as possible
10. Operation language within the group are German and English
11. W. Wurth talk: Short pulses are getting more and more important, as well as multibunch operation
12. Sample preparation is an important point for the user: Improvement on sample preparation (thin water film possible, which contains the samples in water) was made
13. FLASH 2020+ will become the only seeded, high-rep rate XUV FEL in the world

14. RC: Laser work on every day. Emittance measurements were not possible due to changing bunch charge. According to Matthias things should have improved.
15. Frank: Can we get a new crystal for the MBI Laser in order to get proper operation
16. Discussion on the next few weeks of operation: Which laser could we used, how much time does the delivery of crystals for the MBI laser will take, etc.

Protocol prepared by R. Niemczyk