

# Minutes of PITZ Physics Seminar, 07.04.2022

Project: PITZ

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## Agenda:

- 1) General Announcements
  - a. Input on possible PITZ contributions to FRPT 2022 (e.g. flexible beam delivery for flash therapy at PITZ, General dosimetry studies (ADVACAM), first biology samples at PITZ, electron flash beam diagnostics, kicker development for flash rad. therapy)
  - b. IPAC 22 Quarantine rules, participants and presenters for contributions, change presenter as soon as possible
  - c. Updated budget for GUN 5 production
  - d. Annual appraisal interviews (JAG) to be done
  - e. Continuation of surface treatment experiments using plugs (repeat exp. with same geometry as existing plugs)
  - f. Feedback on summer student selection is done
- 2) A. Hoffmann, Photocathode laser pulse control
  - a. Can the MBI pockels cell be controlled by internal and external with just a switch without recableling? Yes, but more complicated than external shutter more work for controls group, same for Pharos
  - b. Fast shutter does not work within a train, only on 10 Hz level
  - c. Why need for faster shutter? Only if the existing shutter cuts in bunch trains / is too slow (backup plan)
  - d. Check delivery time on faster shutters, might not be in stock
  - e. Mechanical design, magnetic mechanism for closing, EOM or liquid crystal shutters are faster. Yes, but not available in UV (damaging of components) and more complicated to set up.
  - f. For the future a UV EOM system would be nice to switch of pulses within a train to allow the kicker time to deflect beam, continue investigating this
  - g. How low can the Pharos rep. rate get? Down to 1kHz without risking damage
- 3) Discussion on how to proceed with beam time after easter
  - a. Booster conditioning should start in week 15, test if booster is working on 8.4.2022, inform rf colleagues to get booster ready
  - b. CsTe cathode will be inserted on Thursday 21.4. for first measurements with Gun 5.1
  - c. Cancel shift operation in week 17 (latest 21.4. 18:00) if operation permit arrives
  - d. Morning shifts (Mo-Fr) in weeks 18-21 as AC since work in tunnel 2 is planned (26.5. – 29.05. AC like christmas)

Protocol prepared by  
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(Name, Date)