

# Minutes of PITZ Physics Seminar, 2019-07-11

Project: PITZ

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## 1) Agenda

- a) AOB
- b) R. Niemczyk: Comparison of camera calibration procedures
- c)
- d)

## 2) Results:

- a.1) DESY campus day needs volunteers for tours
- a.2) Matthias will prepare flattop during his first two shifts in next run period.
- a.3) TDS is back. But the power was checked in the morning and to be checked further on the next day

b) Raffael gives a talk on the calibration of the camera: from pixels to  $\mu\text{m}$ . At PITZ, the calibration is usually done with the help of a grid which is placed at the equivalent distance of the screen from the camera and a lens is also necessary to focus the light. In the case of the absence of a grid, the calibration can still be done with the real screen size. This raises a question: do we really need the grids? Without the grid, the optics could be more compact: no lens is needed. As an example, at PST.scr1 lyso, the two methods give a calibration factor of  $<1\%$  relative difference.

RN proposes to implement this simple calibration for only several stations, e.g., PST.Scr1 Lyso. But OL thinks that it might be difficult to change the current optics of the stations which have grids and work well.

TW: The grid can be a part of the screen stations. It has the benefits of both methods.

HQ: Opening apertures could be a problem. RN: apertures shouldn't be touched by non-experts. MG: Consider the remotely controllable lenses.

HQ: Ye is leaving and someone new should be trained for calibration. Although GV helps from time to time, two persons are necessary.

Protocol prepared by X.-K. Li