

07-09-2020, 4:30 CET

## Participants

Gert-Jan Bakker, [Ulrike Boehm](#), Frank Eismann, Orestis Faklaris, [Toshihiko Fujimori](#), [Nathalie Gaudreault](#), [David Grunwald](#), Hella Hartmann, [Uros Krzic](#), [Baptiste Monterroso](#), Sebastian Munck, [Roland Nitschke](#), [Ute Resch-Genger](#), Britta Schroth-Diez, Anje Sporbert, [Werner Zuschratter](#) (present people in grey, missing people in blue)

## Agenda

1. Introduction round
2. Documentation of WG2 meetings
  - a. No recording of the meetings
  - b. Upload of meeting minutes and chat content (WG2 folder on bw cloud)
  - c. Everyone got access to the bw cloud?
3. Establish a WG2 chair - Britta Schroth-Diez, and deputy chair: Gert-Jan Bakker.
4. How often do we want to meet when and for how long?
  - a. Once a month
  - b. 2<sup>nd</sup> Monday in a month 5 - 6:30pm? -> next meeting Oct 12th
5. What do we want to deliver? Definition of our WG2 mission statement?
  - a. we start out from the general purpose of the device collecting the information of an image, called here “the detector”; characterize the general specs (see point 6); then go from the general to the specific devices (PMTs, cameras, APDs, ...)
6. Which intermediate steps do we define?
  - a. Definitions of topics:
    - i. Stability (long-term / short-term)
    - ii. Linearity (range?)
    - iii. Sensitivity,
    - iv. QE (how to describe per detector type)
    - v. Noise characterization: this gives a real info only dependent on the detector
    - vi. Gain - Bandwidth product: measurement speed versus noise
  - b. Which detectors do we address:
    - i. Detectors of the systems (detectors for LSMs, cameras)
    - ii. not detectors for system maintenance measurements!
  - c. Collect relevant resources in our resources folder and go through them
    - i. (eg: EMVA - 1288 @ <https://www.emva.org/standards-technology/emva-1288/>; contact manufacturers)
    - ii. see the resource folder by Roland:
      1. we go through it, get overview idea; everybody does 5 (ordered alphabetically): 1-5: Gert-Jan, 6-10: Frank; 11-15: Hella, 16-20: Sebastian; 21-25: Orestis; 26-30: Anje; 31-35: Britta
    - iii. look for resources about the theory (books: <https://link.springer.com/book/10.1007/978-0-387-45524-2>; websites

manufacturers, e.g. Hamamatsu, B&H, PCO): Gert-Jan: will make inventory, look

7. Define action items in preparation of our next meeting.
  - a. contact companies: Andor (Britta), PCO (Britta), Hamamatsu (Britta), Zeiss (Frank):
    - i. how do they characterize their detectors: what are the noise sources
    - ii. ideally join us
  - b. collect, present and share how we measure linearity, stability etc in our facilities
  - c. fill in the spreadsheet/s, organized by topic (point 6) prepared by Gert-Jan; includes definitions and ways how to measure
8. Distribute the work.
  - a. see the names above
  - b. establish a way to communicate and share: via email; always start with Quarep\_WG2 in the subject for easy sorting
9. Assign a time-line to the individual steps.
  - a. collect information until next meeting
  - b. set up time line for following steps in the next meeting
10. Miscellaneous
  - a. nothing specific

## Action items from previous meeting

- Next meeting date: Oct 12th, 5pm - 6:30PM
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## Meeting Notes

## New action items

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