

LEAPS Plenary meeting

Internal session II – 19th October 2023

WG2 on Photon Sources

M.Calvi, PSI

WG2, Photon Sources: Ongoing projects

- Permanent Magnet LEAPS Internal Collaboration (**PerMaLIC**) - F. Perez, ALBA
 - Kick-off meeting / workshop May 31st 2021 - followed by several meetings and seminars
 - NEXT Workshop (with iFAST) on Nov 14th-15th 2023, Trieste,
<https://indico.cells.es/event/1373/>
- Harmonic Cavities LEAPS Internal Project (**HarmonLIP**) - P. Tavarez, MAXIV
 - Kick-off meeting / workshop @MAX IV on Oct 10th-12th 2022, Lund,
<https://indico.maxiv.lu.se/event/5098/>
 - NEXT workshop @ESRF on March 19th-20th 2024, Grenoble
- Androids for Remote Access (**ARA**) - R. Wanzenberg, DESY
 - Kick-off meeting / workshop @CERN on May 23rd-24th 2023,
<https://indico.psi.ch/event/14358/>
 - MoU in preparation between DESY & CERN (to be extended to LEAPS)

WG2, Photon Sources: Ongoing projects

- Longitudinal Electron Dynamics (**LEDs**) – P.Evtushenko & S.Di Mitri, HZDR-Elettra
 - Kick-off meeting / workshop @ENEA on Oct 3rd-5th 2023, Frascati (<https://indico.elettra.eu/event/29/>)
- Virtual Diagnostic (**VD**) - C. Arrell & J. Gruenert, PSI-EUXFEL
 - kick-off meeting @DESY on Sep 28th-29th 2023, Hamburg
- The Fully Automated Beamline (**FAB**) - H.-C. Wille, DESY
 - Kick-off meeting (Zoom) on March 27th 2023
 - Next meeting on Oct 27th 2023

WG2, Photon Sources: Outlook / future plans

- Support Python digital twin for storage rings
- Apply to the EIC Pathfinder for PerMaLIC2.0
- Join the CERN proposal for next Infratech2024 on **High Temperature Superconductor** technology:
 - Ultra-high field solenoids (from 40 T up to 60 T)
 - High field/large bore solenoids (up to 20 T, 1 m bore)
 - High field/low consumption accelerator magnets (up to 20 T, up to 150 mm bore, up to 20 K)
 - High field short period undulators ($>2T$, $\lambda_u < 10\text{mm}$)

