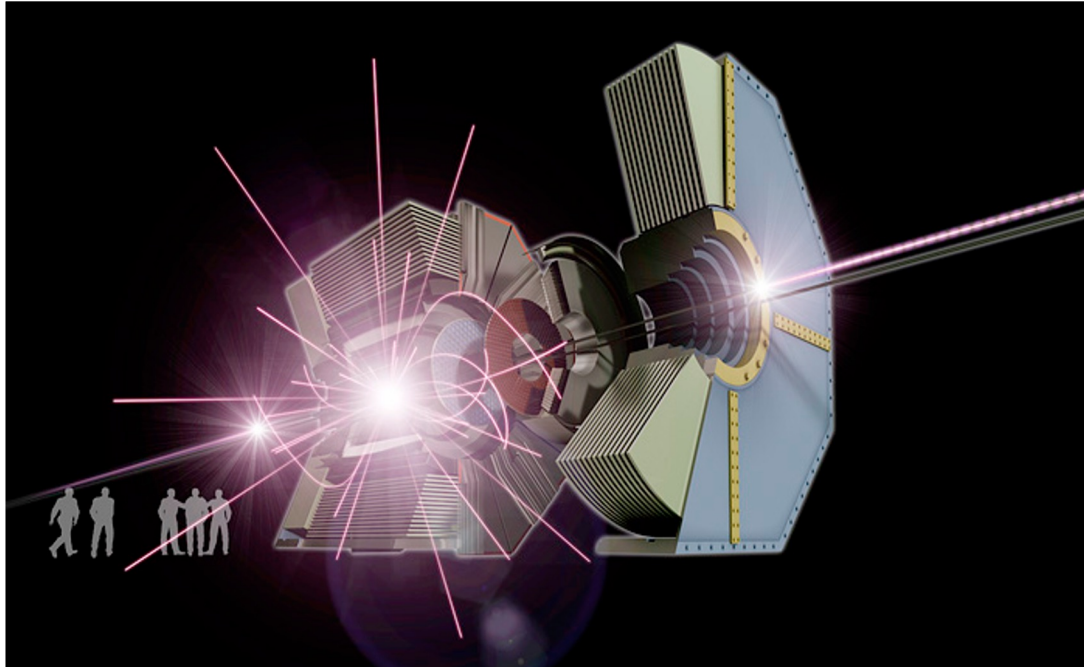
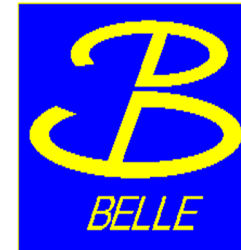


Austrian Roadmap Round Table Meeting



10/06/2024

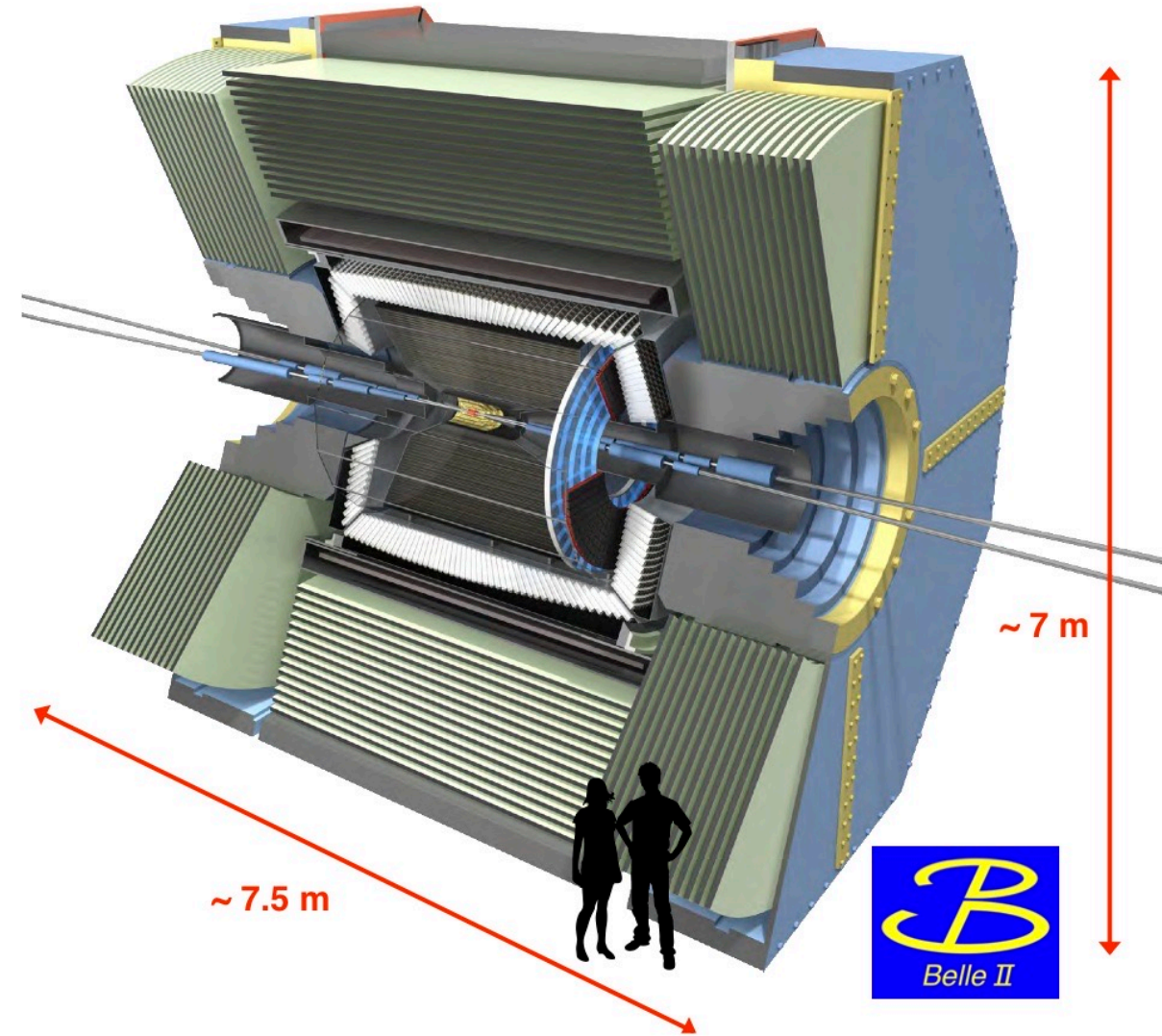
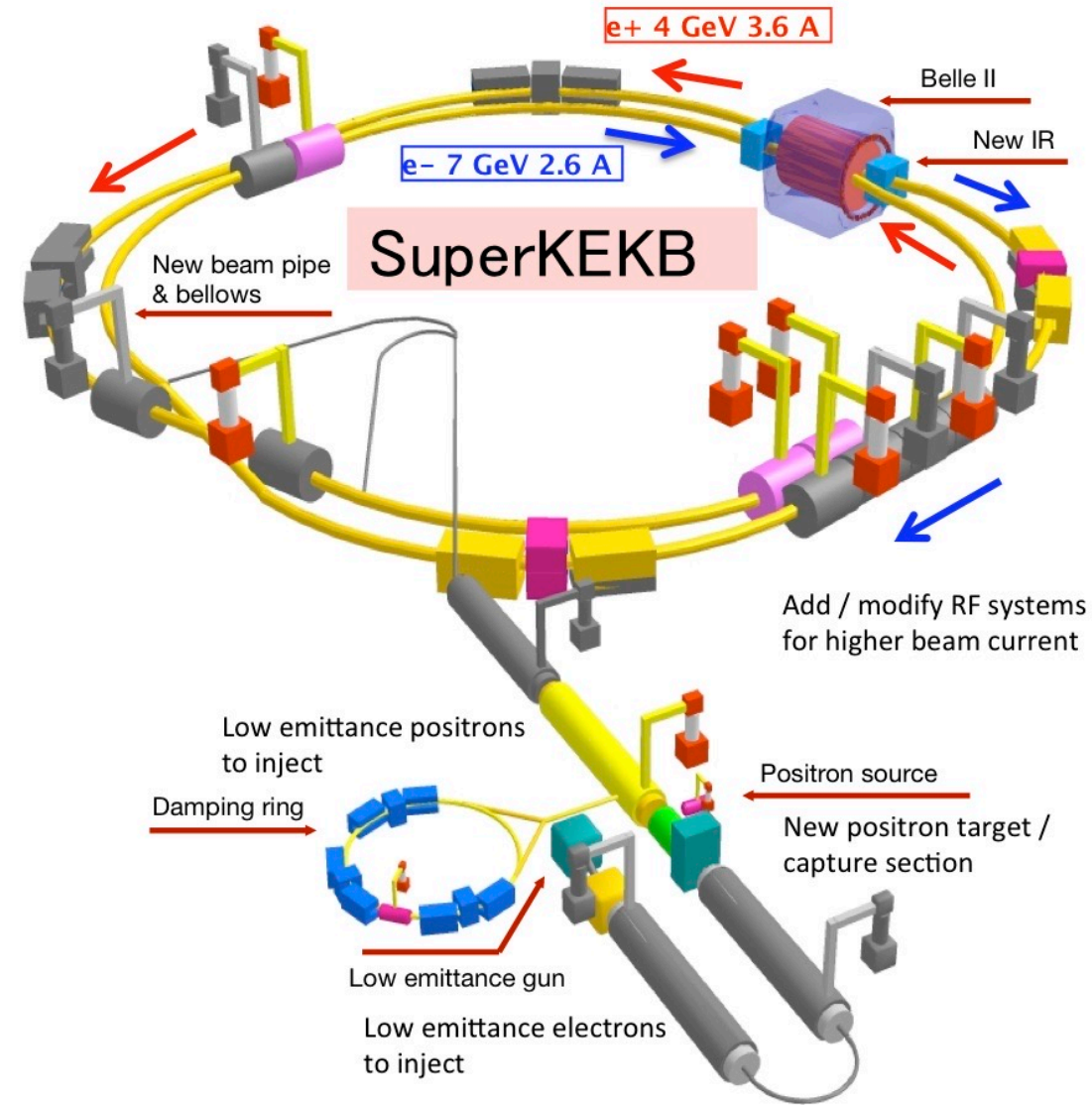
G. Inguglia (and C. Schwanda)



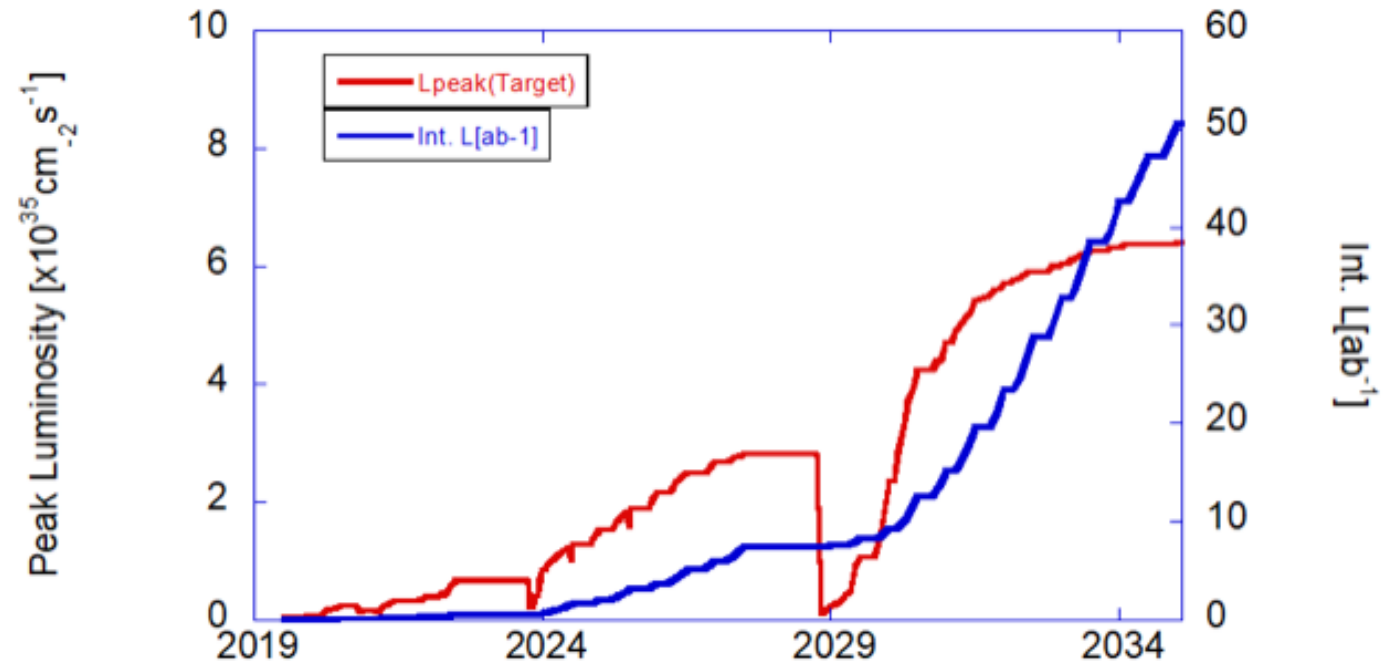
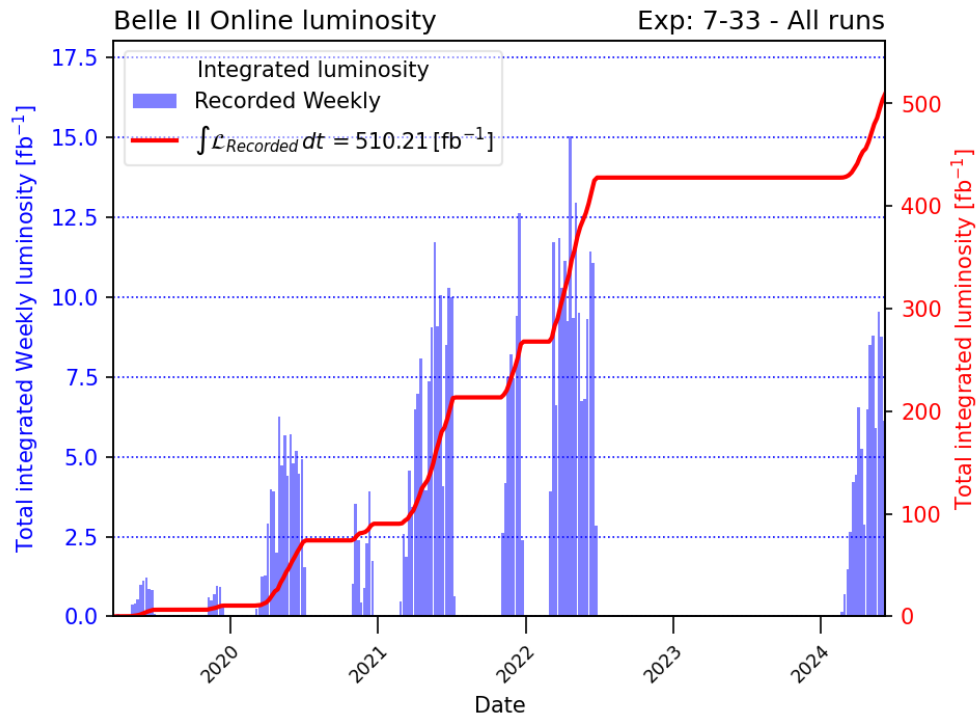
European Research Council

Established by the European Commission

SuperKEKB and Belle II, machine and detector



SuperKEKB and Belle II, status and plans

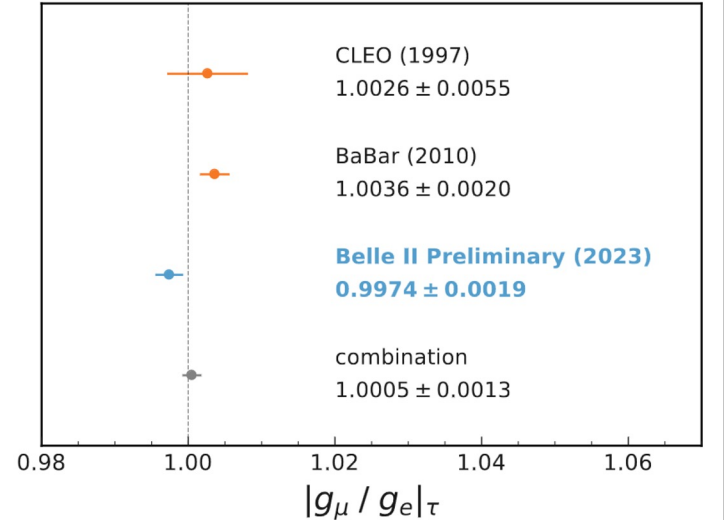
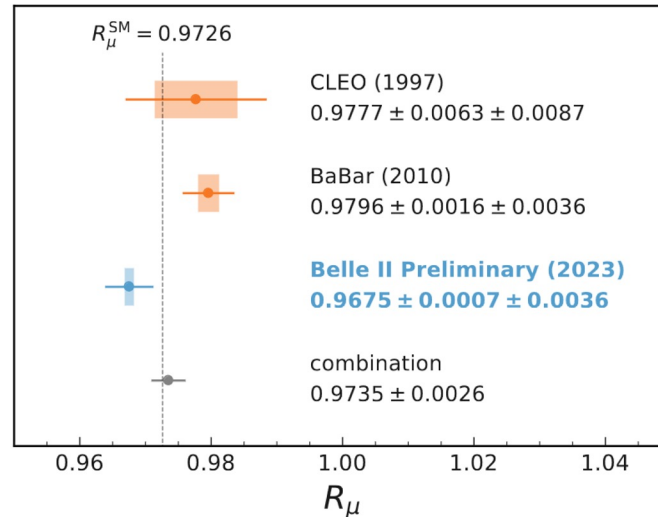
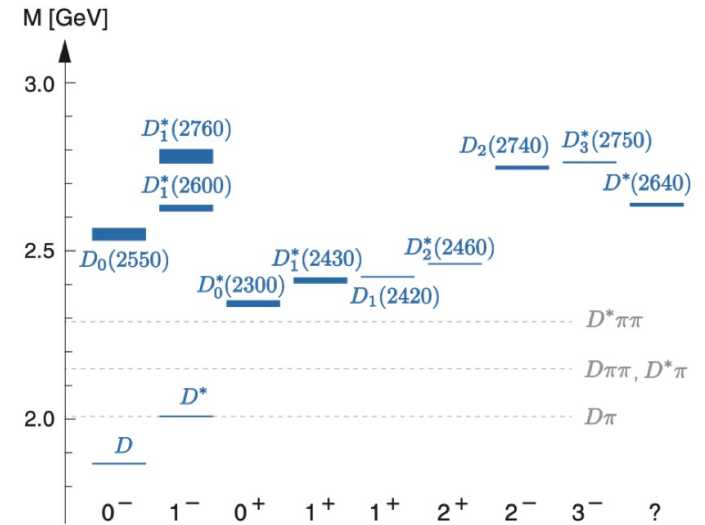
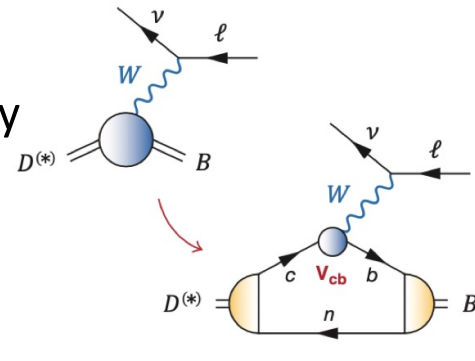
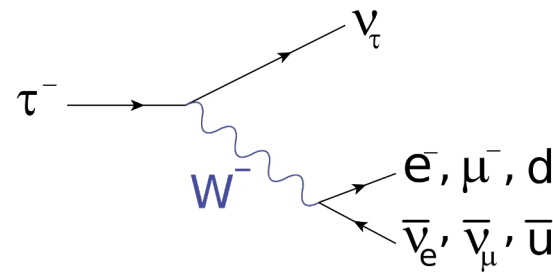
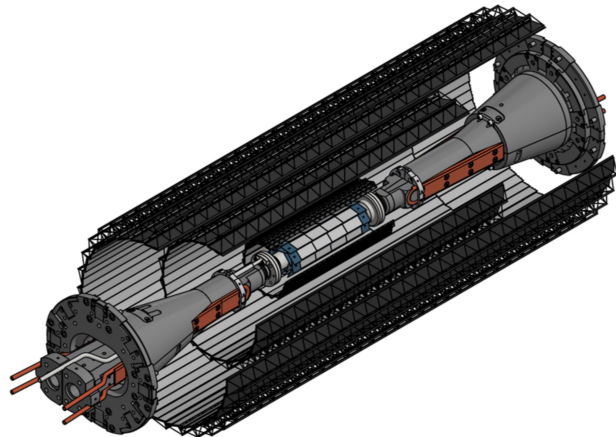


Integrated around 500/fb of data so far. Luminosity slowly ramping up.

Current activities/ mid-term plans



- HEPHY members have key roles in all aspects of Belle II
- Semileptonic B decays, test of lepton flavour non-universality (FWF P34529, M3153)
- Precision SM tests with τ , dark sector searches, rare B decays (ERC StG InterLeptons and beyond)
- Charmed baryons (collaboration with Gernot Eichmann/Uni Graz)
- Charm CPV (M. Bertemes)
- DMAP sensor development for the Belle II VTX upgrade and other related activities



World's most precise test of LFU in tau and most precise determination of $|g_\mu/g_e|$
Submitted to JHEP, see [ArXiv 2405.14625](https://arxiv.org/abs/2405.14625). Expect a measurement with 3x1 topology!

Longterm plans/future facilities

- Future e+e- experiments (FCC-ee)
 - Interest triggered at this point mainly by ongoing hardware developments
 - Physics program to be worked out

Synergies

- With other groups in Austria
 - Gernot Eichmann/Uni Graz – charmed hadrons
 - Alicja Malgorzata Michalowska-Forsyth/TU Graz – DMAP sensors
 - C. Krause/HEPHY machine learning

