

ACCELERATOR SEMINAR

Mei Bai

SLAC

Thursday, 17. November 2022 at 4 pm

Hybrid Seminar

Seminarraum Theorie (SB3 3.170a) + ZOOM

Zoom: (ID: 694 9129 9288/ PW: 193223)

C3Demo, a cool path towards the next generation high efficient compact LINAC

SLAC has been investigating the feasibility of hosting the demonstration of Cool Copper Collider technology as an alternative approach for high energy e+e- collider [1]. This technology is based on the breakthrough that SLAC researchers have made in pushing normal conducting RF acceleration structure towards extreme high gradient [2,3]. The ongoing design study aims for putting together a coherent plan and roadmap for addressing the required R&Ds to bring this technology towards more compact and cost-effective high energy linac. This talk will present the status along with brief introduction of accelerator R&Ds at SLAC.

[1] E. Nanni et al, <https://lss.fnal.gov/archive/2022/conf/fermilab-conf-22-217-ad-lbnf-pip2-ppd-td.pdf>

[2] V. A. Dolgashev, et al, Appl. Phys. Lett. 97, 171501 (2010); <https://doi.org/10.1063/1.3505339>

[3] M. Nasr, E. Nanni, M. Breidenbach, S. Weathersby, M. Oriunno and S. Tantawi, "Experimental demonstration of particle acceleration with normal conducting accelerating structure at cryogenic temperature," Phys. Rev. Accel. Beams 24, 093201 (2021); <https://link.aps.org/doi/10.1103/PhysRevAccelBeams.24.093201>



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<https://indico.gsi.de/categoryDisplay.py?categId=359>

