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Progress in electron acceleration at CALA

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This contribution will present recent progress and limitations of the electron acceleration program at CALA. We are working on several programmatic goals:
1. providing monoenergetic multi-GeV beams for our planned Breit-Wheeler experiment.
2. expanding the hybrid LWFA-PWFA scheme towards ultra-low emittance and high transformer ratios, while characterizing the hybrid LWFA-PWFA plasma wave morphology in dependence of electron beam parameters.
3. work towards the realization of the Plasma-Modulated Plasma Acceleration (P-MoPA) scheme towards kHz electron acceleration.
As all the performance of all these projects is currently limited by shot-to-shot fluctuations, I will not only give an overview of the insights from and the status of these projects, but also discuss recent finding on the origin of these fluctuations in a PW laser system.

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