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# Adaptive mesh refinement Poisson solver for neighbouring bunch simulations

*Thursday 21 November 2019 11:00 (45 minutes)*

In this talk the new adaptive mesh refinement capability of OPAL including the implementation of the hardware architecture independent Poisson solver is presented. This new feature enables to study neighbouring bunch effects in circular machines more precisely with the benefit of lower computational costs compared to standard Particle-In-Cell simulations of same resolution.The numerical model of neighbouring bunches is explained and first results of the PSI Ring cyclotron are shown.

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