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## Weak-strong simulations of electron clouds effects from the Inner Triplets of the Large Hadron Collider

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Slow beam losses have been consistently observed during operation of the Large Hadron Collider (LHC) with closely-spaced proton bunches. Observations after dedicated studies support that a significant part of the losses is driven by the non-linear forces of electron clouds in the Inner Triplet quadrupoles of the LHC. This contribution presents a method for efficient weak-strong simulations of the effect of electron clouds forming in the two-beam chamber of the Inner Triplets, where the closed orbit and the betatron functions of both beams vary considerably along the longitudinal coordinate. Finally, dynamic aperture simulations confirm the negative impact from these effects in the operational configuration of the LHC during Run 2 and Run 3.

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