## Interface scaling limit for the critical planar Ising model perturbed by a magnetic field

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In this talk, I will consider the interface separating +1 and -1 spins in the critical planar Ising model with Dobrushin boundary conditions perturbed by an external magnetic field. I will prove that this interface has a scaling limit. This result holds when the Ising model is defined on a bounded and simply connected subgraph of  $\delta \mathbb{Z}^2$ , with  $\delta > 0$ . I will show that if the scaling of the external field is of order  $\delta^{15/8}$ , then, as  $\delta \to 0$ , the interface converges in law to a random curve whose law is conformally covariant and absolutely continuous with respect to SLE<sub>3</sub>. This limiting law is a massive version of SLE<sub>3</sub> in the sense of Makarov and Smirnov and I will give an explicit expression for its Radon-Nikodym derivative with respect to SLE<sub>3</sub>. I will also prove that if the scaling of the external field is of order  $\delta^{15/8}g(\delta)$  with  $g(\delta) \to 0$ , then the interface converges in law to SLE<sub>3</sub>. In contrast, I will show that if the scaling of the external field is of order  $\delta^{15/8} f(\delta)$  with  $f(\delta) \to \infty$ , then the interface degenerates to a boundary arc.

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