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Loc Xuan Tran* (loc.tran@epfl.ch), EPFL SB MATHAA CAMA, MA C1 632 (Bâtiment MA), Station 8, CH-1015 Lausanne, Switzerland, and **Minh Hoai Nguyen** (hoai-minh.nguyen@epfl.ch), EPFL SB MATHAA CAMA, MA B2 535 (Bâtiment MA), Station 8, 1015 Lausanne, Switzerland. *Approximate Cloaking for Maxwell equations via Transformation Optics: Non-resonant and Resonant Phenomena.*

In this talk, we discuss the approximate cloaking for Maxwell equations via transformation optics using the approximate scheme in the spirit of the one introduced by Kohn et al. (Inverse Problems 2008) in the quasistatic acoustic setting. Hence no lossy layer is required in the construction of the cloaking device. On one hand we show that, in the non-resonant case, cloaking is achieved and the energy of the field is finite. On another hand, in the resonant case, we reveals that cloaking might not be achieved and the energy can go to infinity. Our work extends the one of Nguyen (CPAM 2012) where the acoustic setting was investigated. (Received September 14, 2016)