Superconductor/ferromagnet composites

• non-linear magnetic permeability – no problem for FEM codes, difficult in analytical calculations

• we are not aware of numerical methods for modeling of the hysteretic electromagnetic behaviour of ferromagnetic components with the predicting power similar to that of the critical state model for superconductors
  - our ignorance?
  - different scales of the governing interaction
    (superconductor – macroscopic, ferromagnet – microscopic)
  - discuss with experts in ferromagnetism, magnet designers