${\rm ESM~Cargese~-~10\text{-}20^{th}~October~2017} \\ {\rm Introduction: Fields~-~Units~-~Magnetostatics~-~Laurent~Ranno}$

Introducing magnetic materials into the game requires to define new physical quantities such as magnetisation, magnetic field, magnetic induction ... This lecture will introduce the concepts needed to discuss situations where magnetic materials and fields sources are present.

These new physical quantities can be defined using the S.I. system but some years ago, old units were widely used and unfortunately some of them (Oersted, Gauss, emu, erg ...) are still around. Anyway being able to read past literature means keeping track of conversions to recover published data. Some time will be spent in order to properly define quantities and their units in order to study further all the subjects dealt with during ESM2017.