

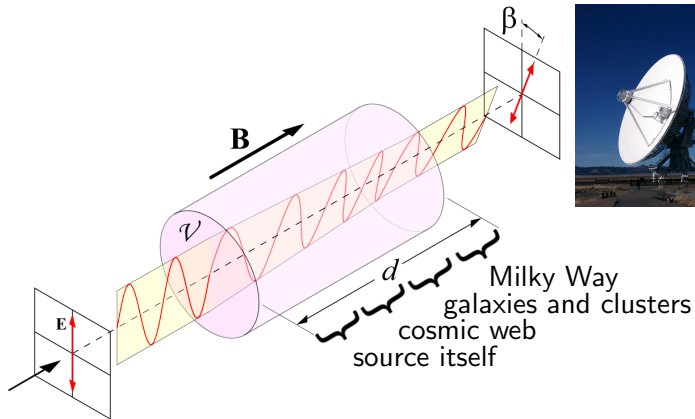
Statistics of magnetic fields

Niels Oppermann



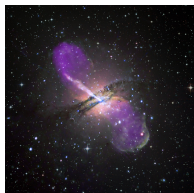
CITA jamboree, Toronto, 2014-09-15

Faraday rotation



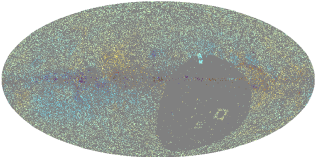
$$\text{Faraday depth: } \phi \propto \int_{r_{\text{source}}}^0 n_e(\vec{x}) B_r(\vec{x}) dr$$

$$\beta = \phi \lambda^2$$

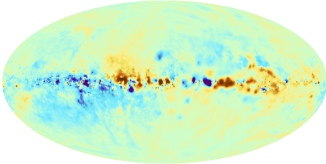


Faraday rotation

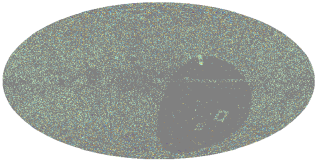
observed



Milky Way



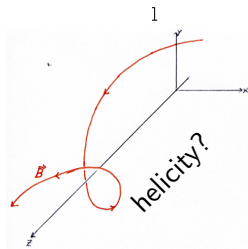
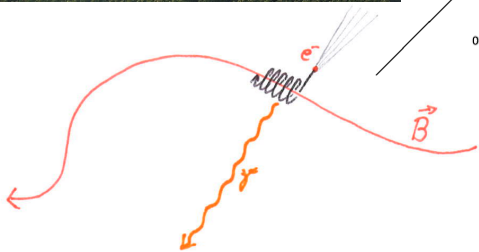
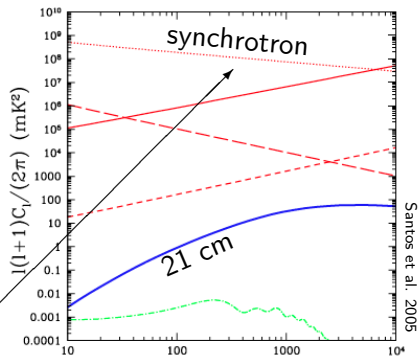
extragalactic



clusters, filaments, voids, . . .

21 cm foregrounds

GBT



Planck

