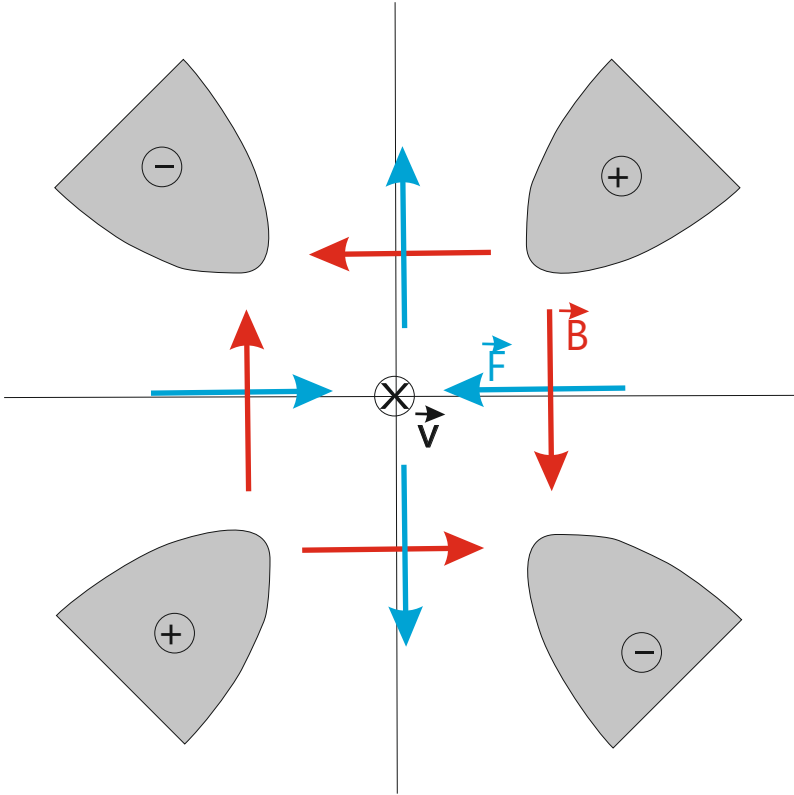
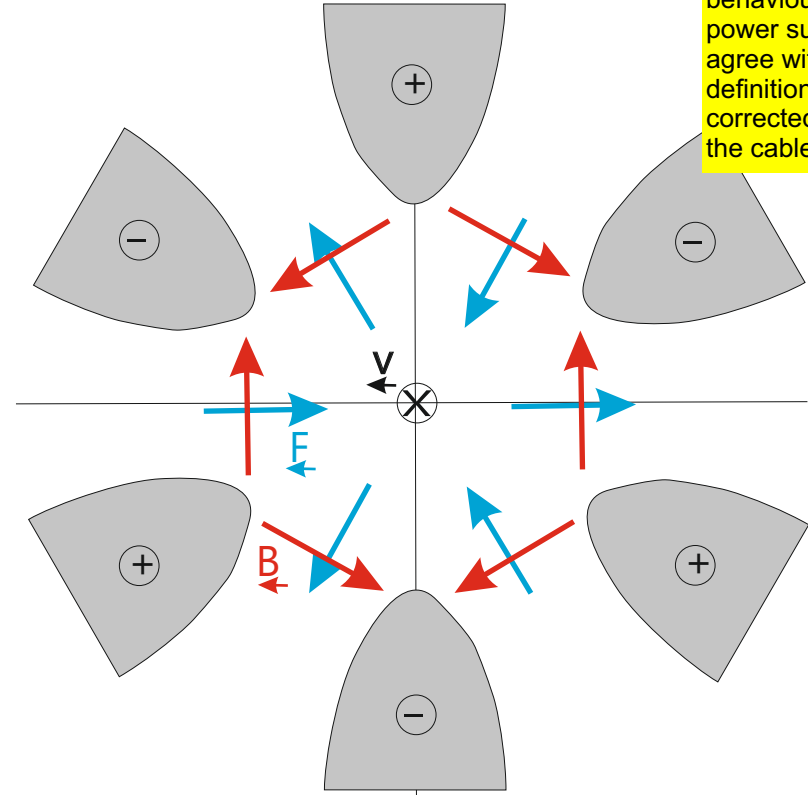


Quadrupole is positive in LSA



$(A|X)=R_{21} < 0$ (focusing for $q>0$ particles),
 $B > 0$ in GICOSY, $k_1 > 0$ in MAD-X,
 in MIRKO it is red and K is negative

Hexapole is positive in LSA



Up to Nov 2022 the behaviour of the FRS power supplies did not agree with the LSA definition. Then it was corrected by swapping the cables.

$(A|XX)=T_{211} < 0$ (for $q>0$ particles),
 $B > 0$ in GICOSY, $k_2 > 0$ in MAD-X

To be used for conversion from GICOSY-> LSAset file (parammodi)

$$K'L = B_0/G_0 \quad L_{\text{eff}} \quad / \quad B\rho$$

$$K''L = 2 B_0/G_0^2 * L_{\text{eff}} \quad / \quad B\rho$$

Polarity of sextupole magnets was tested with Hall probe on TS4KS1 and TS4KS2, by Yoshiki and Erika 22.03.2021 before swapping the cables, also confirmed by beam.