Fourier Decomposition of Azimuthal Distributions

Voloshin, Zhang ZfP C70(96)665 Barrette et al., PRC 55(97)1420

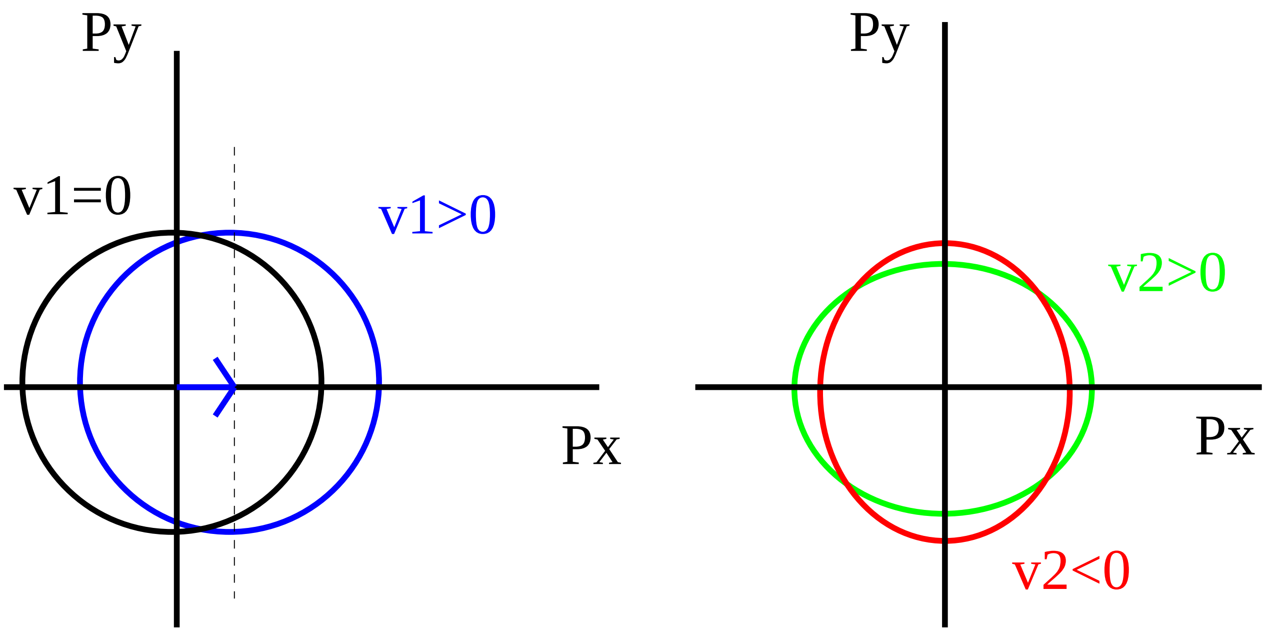
- consider an observable X (E_t, N_c, p_t ...) in a rapidity bin η.

- Fourier decomposition with respect to the reaction plane:

$$\frac{d^2X}{d\eta d(\phi - \Psi_R)} = v_0 (1 + \sum_{n \geq 1} (2 v_n \cos n(\phi - \Psi_R)))$$

$v_0 = \langle X \rangle / 2\pi$ in η-bin

v_n: corrected Fourier coefficients



- Reaction plane spanned by x and z axis.