The equilibrium beam envelope (second order moment) $\left\langle X_i X_j \right\rangle$ is calculated by the `EMITTANCE(EMIT)` command an
tion by solving:

$$\left\langle X_i X_j \right\rangle = \mathrm{M} \left\langle X_i X_j \right\rangle \mathrm{M}^T + \Delta_{ij} \, ,$$

where $X_i = (x, p_x, y, p_y, z, \delta)$ is the deviation from the closed orbit at the entrance of the beam line, M the one-turn transfe
damping, and Δ_{ij} the one-turn excitation due to synchrotron radiation and intrabeam scattering. The excitation Δ_{ij} is affec
the case of intrabeam (`INTRA`). The transfer matrix M can be affected by the envelope due to space-charge in the case of
are done for such cases.

In the case of an ideal ring, as the intrinsic vertical emittance might be too small, the intrabema or space charge eff
cally large. For such cases, a global variable `MINCOUP` is useful to specify their *minimum* values as:

$$\varepsilon_{x,y} = \mathtt{Max}\left[\varepsilon^0_{x,y}, \mathtt{MINCOUP} \times (\varepsilon^0_x + \varepsilon^0_y)\right] \, ,$$

where $\varepsilon^0_{x,y}$ are the emittances given only by the lattice.