Do you have a coherent breakup reaction, or a quasi-elastic scattering with a spectator?

For a coherent reaction, one can use PAngularDistribution (see
http://web-docs.gsi.de/~hadeshyp/pluto/v5.42/examples/useAngularDistribu tion.C.html for a
demo macro) to model the theta angle in the c.m. system relative to the beam momentum. The
2-dimensional version with TF2 gives the energy dependence (y is the total c.m. energy).

For the relative phi distribution, there is no flexible template at the moment existing, but it
should be not much work to add one into Pluto