## **Cost matrix description:**

This function takes in the track segments obtained in Step 1 (frame-to-frame linking) and calculates the costs of linking them in order to close gaps and capture merging and splitting events.

## **Parameter Descriptions:**

**Break non-linear tracks**: If checked, tracks exhibiting non-linearity, i.e. which consecutive segments angles exceed a threshold are broken into compound tracks..

**Maximum forward angle:** This parameter control the acuteness of the forward cone.

Maximum backwards angle: This parameter control the acuteness of the backward cone

Maximum shrinkage factor relative to growth speed: This parameter is the multiplier to the growth speed which controls the upper bound for plus end displacement during shrinkage.

**Fluctuation radius:** This value controls the size of the circular portion of the search region, defining how much a pausing MT can fluctuate sideways during a pause event.