

PSI

Cyclotron old OPAL

```
Ring: CYCLOTRON, TYPE="RINGCYC", CYHARMON=6, PHIINIT=110, PRINIT=-0.0164,
      RINIT=2037, SYMMETRY=8.0, RFFREQ=50.65, BSCALE=1, FMAPFN="s03av.nar",
      TCR1={2022.09, 2012.09, ...}, TCR2={2132.09, 2212.09, ...}, MBTC={0.0e-3, 0.0e-3, 0.0e-3, ...}; SLPTC={1, 1, ...});

Main1: RFCAVITY, VOLT=.8485, FMAPFN="MainCav", TYPE="SINGLEGAP", FREQ=50.65, RMIN=1003.38, RMAX=6203.38, ANGLE=35.0, ... ;

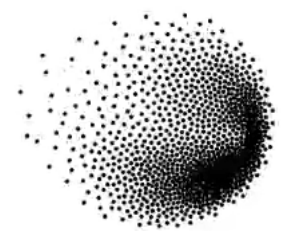
Line1: LINE = (Ring, Main1, ...);

TRACK, LINE = Line1, BEAM = Beam1, MAXSTEPS = ((nstep1)*(5)), STEPSPERTURN = nstep1, TIMEINTEGRATOR = "RK-4";

RUN, METHOD = "CYCLOTRON-T", BEAM = Beam1, FIELDSOLVER = FS1, DISTRIBUTION = Dist;

ENDTRACK;

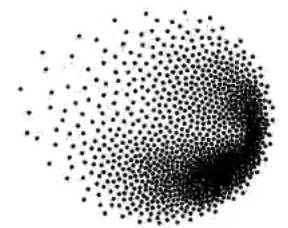
STOP;
```



PSI

Cyclotron OPALX

```
cyclMag: CYCLMAGNET, TYPE="RINGCYC", CYHARMON=6, PHIINIT=110, PRINIT=-0.0164,  
        RINIT=2037, SYMMETRY=8.0, RFFREQ=50.65, BSCALE=1, FMAPFN="s03av.nar",  
        TCR1={2022.09, 2012.09, ...}, TCR2={2132.09, 2212.09, ...}, MBTC={0.0e-3, 0.0e-3, 0.0e-3, ...}; SLPTC={1, 1, ...});  
  
c1: RFCAVITY, VOLT=.8485, FMAPFN="MainCav", TYPE="SINGLE GAP", FREQ=50.65, RMIN=1003.38, RMAX=6203.38, ANGLE=35.0, ... ;  
  
cycl : RING = (cyclMag, c1);      // flagging elements to be element of ring  
  
InjectLine: LINE = (, );  
ExtractLine: LINE = (, );  
  
CLO, LINE = cycl, INPUTPLANE= { } , OUTPUTPLANE= { }, ENERGY= { };  
  
RUN, METHOD = "xxx";  
  
ENDCLO;  
  
// now close orbit object(s) associated with cycl at a given energy(its) is created
```



PSI

Cyclotron old OPALX

```
TRACK, LINE = InjectLine, ... ;
```

```
RUN, ... ZSTOP=
```

```
ENDTRACK;
```

```
TRACK, LINE = cycl, ... ;
```

```
RUN, ... TURNS=10000, ;
```

```
ENDTRACK;
```

```
TRACK, LINE = ExtrLine, ... ;
```

```
RUN, ... ZSTOP=
```

```
ENDTRACK;
```