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High Order Corrections (T1.7)

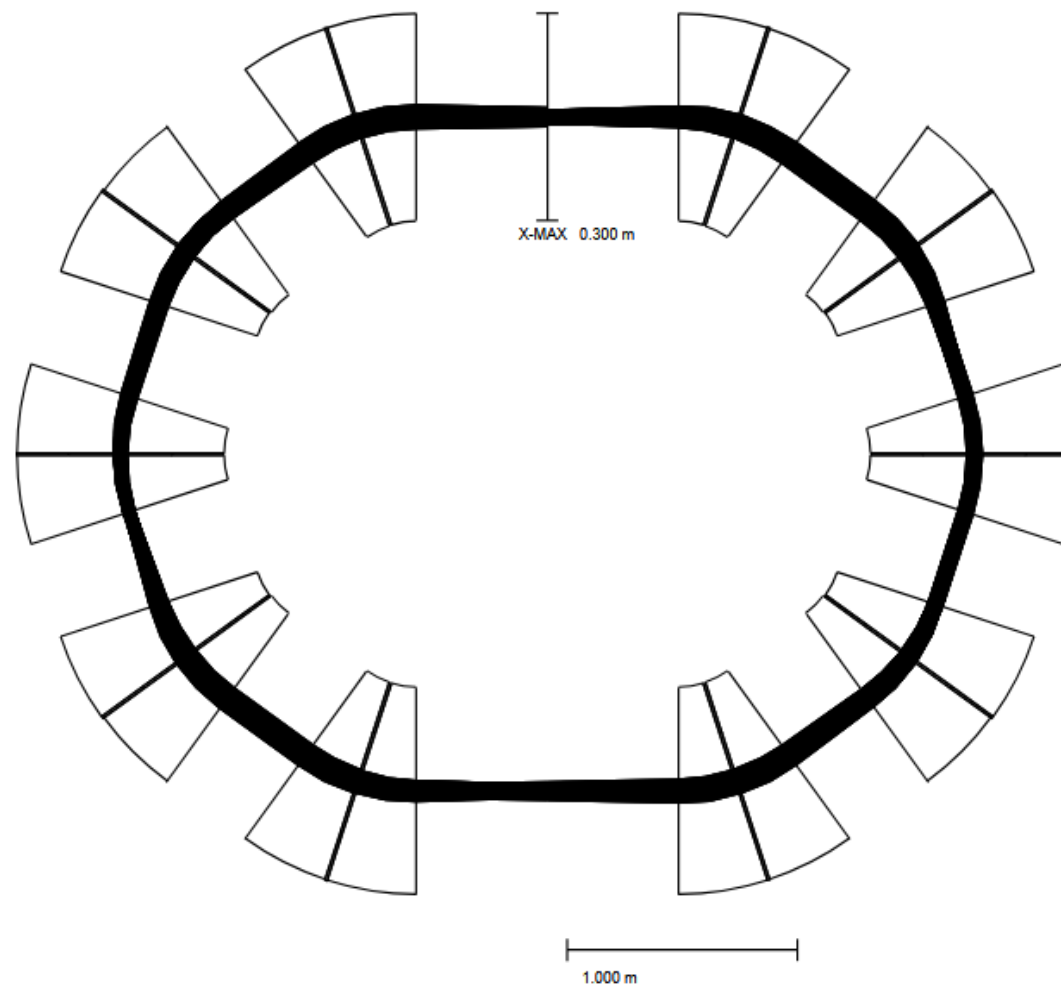
Teresa Kurtukian Nieto
CSIC-IEM, Madrid

ISRS Collaboration meeting
November 25th, 2024

Calculations with GICOSY

GICOSY RING LATTICE 1ST ORDER

SYSTEM PLOT

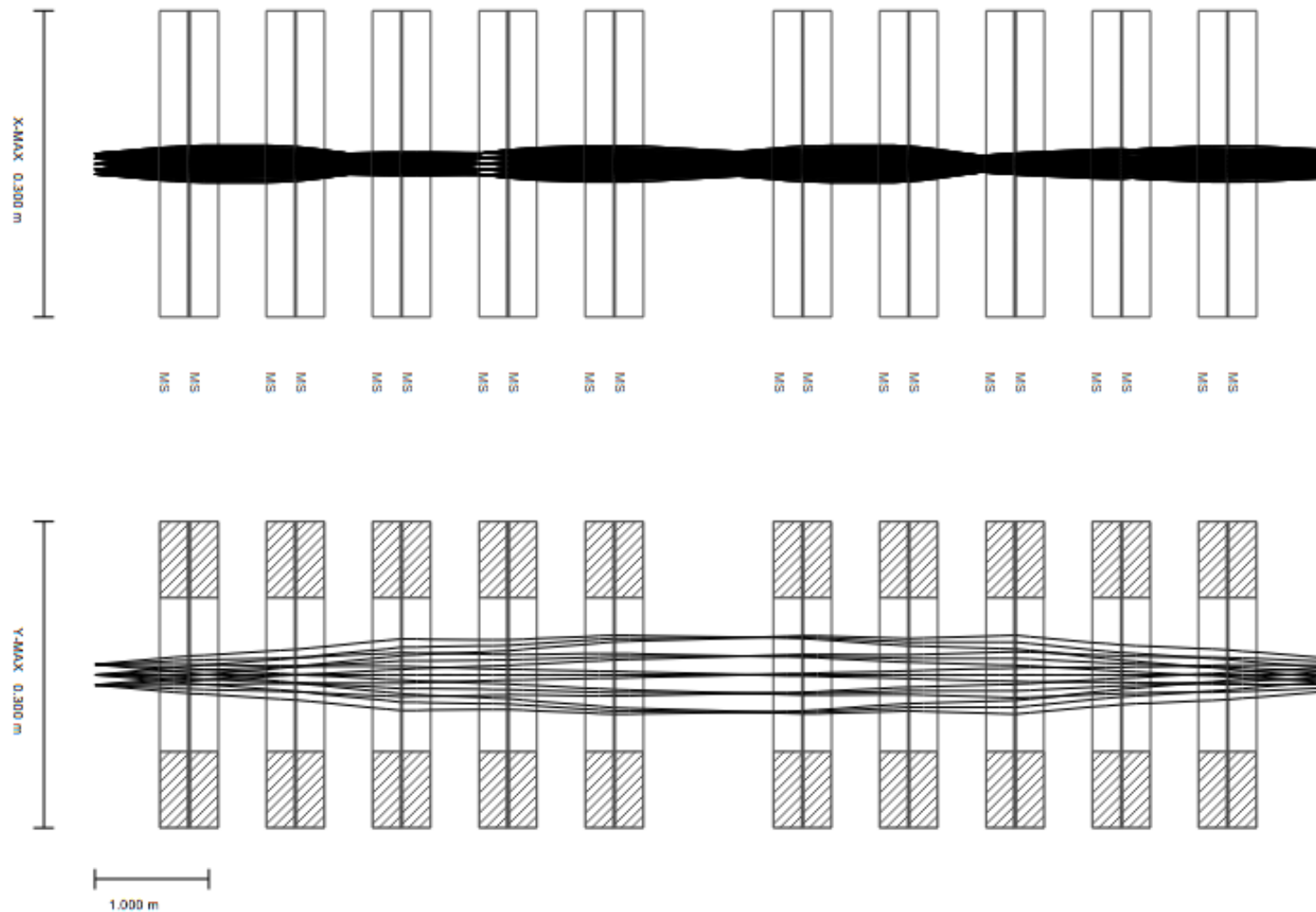


Javier Luis Correa Laorden
PhD Student

GICOSY RING LATTICE 1ST ORDER

BEAM PLOT

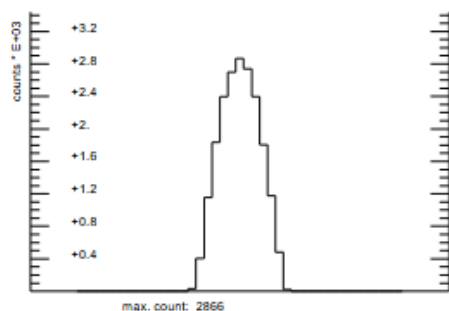
XX.XX.XXX YY:YY:YY



Mid-plane

Final Focal plane

GICOSY RING LATTICE 1ST ORDER



PHASESPACE PLOT

XX.XX.XXX YY:YY:YY

PHASESPACE PLOT OF (X1,Y1) AT 5.382 M

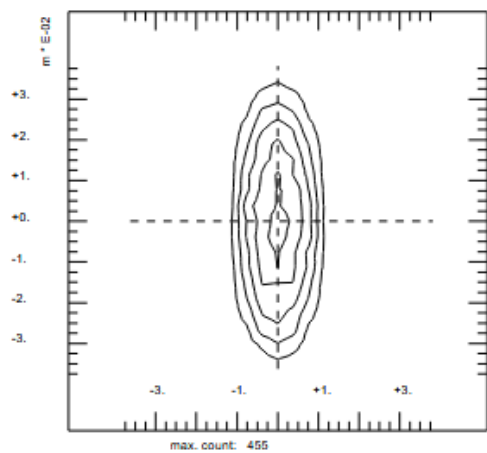
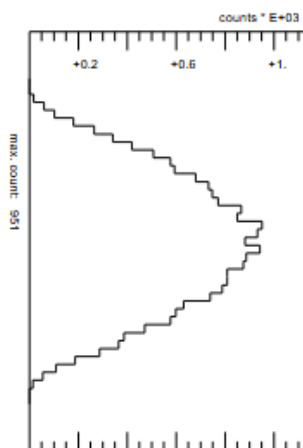
20000 PARTICLES STARTED
20000 PARTICLES IN WINDOW

PARTICLES STARTED IN PHASESPACE

X = +/- 0.01000000
A = +/- 0.01000000
Y = +/- 0.01000000
B = +/- 0.01000000
G = +/- 0.00000000
P = +/- 0.00000000

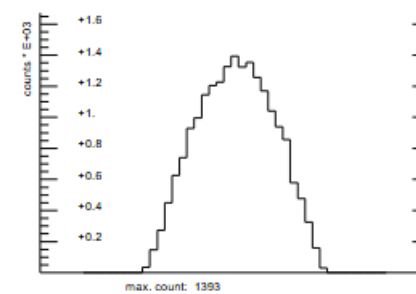
NUMBER OF MASSES : 1
NUMBER OF ENERGIES : 1

CALC MODE: SYSTEM MATRIX
CALC ORDER: 1



m * E-02

GICOSY RING LATTICE 1ST ORDER



PHASESPACE PLOT

XX.XX.XXX YY:YY:YY

PHASESPACE PLOT OF (X1,Y1) AT 10.194 M

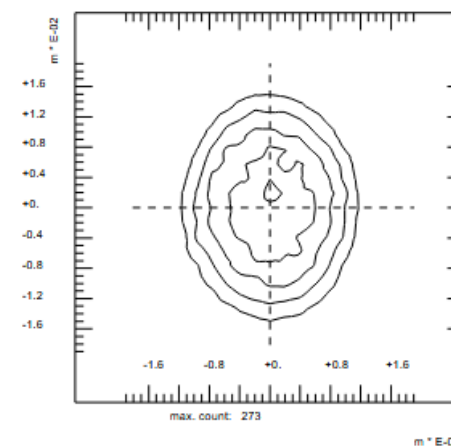
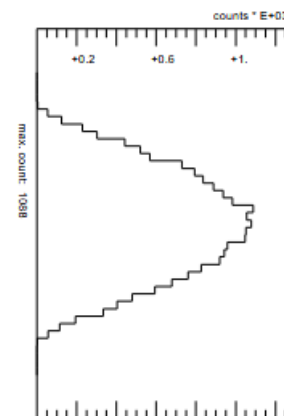
20000 PARTICLES STARTED
20000 PARTICLES IN WINDOW

PARTICLES STARTED IN PHASESPACE

X = +/- 0.01000000
A = +/- 0.01000000
Y = +/- 0.01000000
B = +/- 0.01000000
G = +/- 0.00000000
P = +/- 0.00000000

NUMBER OF MASSES : 1
NUMBER OF ENERGIES : 1

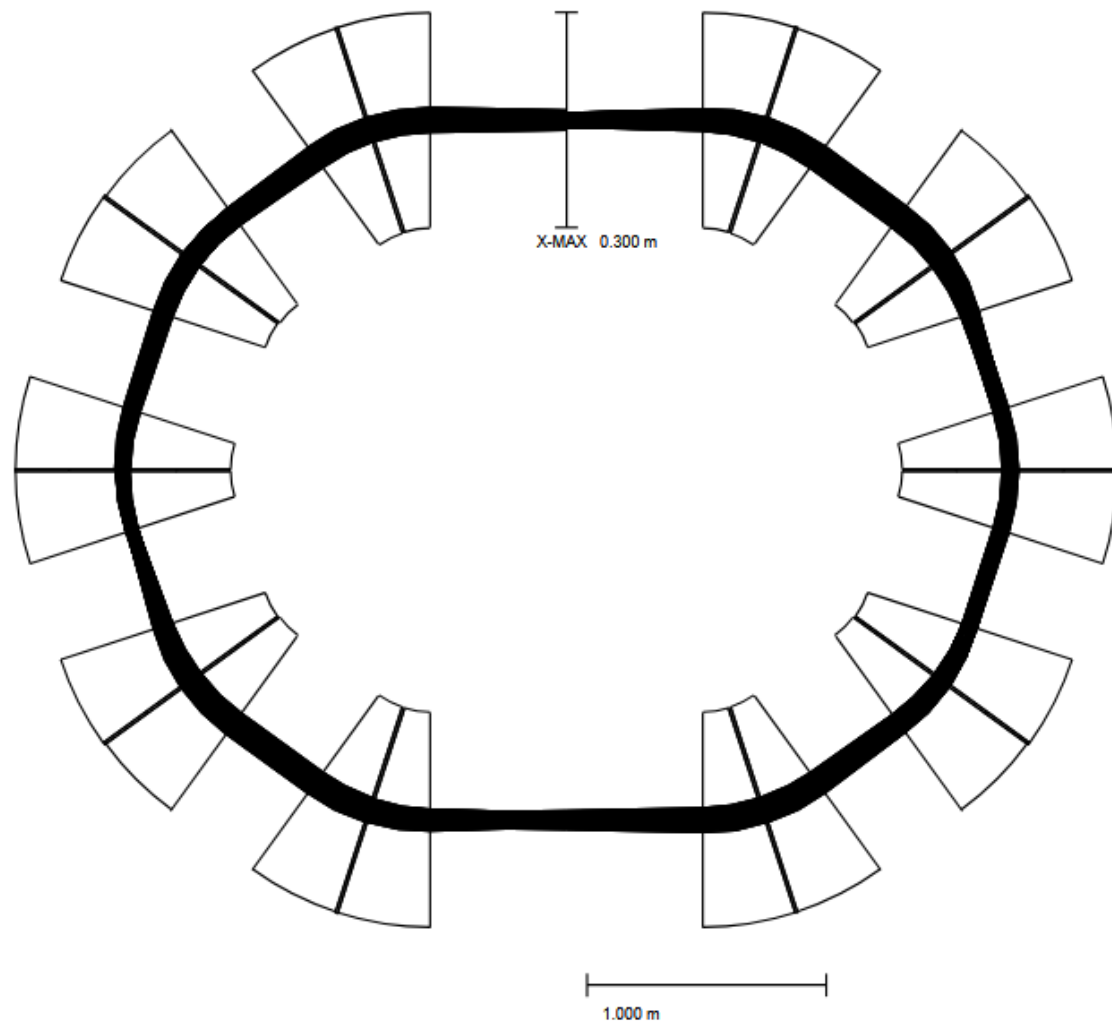
CALC MODE: SYSTEM MATRIX
CALC ORDER: 1



m * E-02

GICOSY RING LATTICE 3RD ORDER

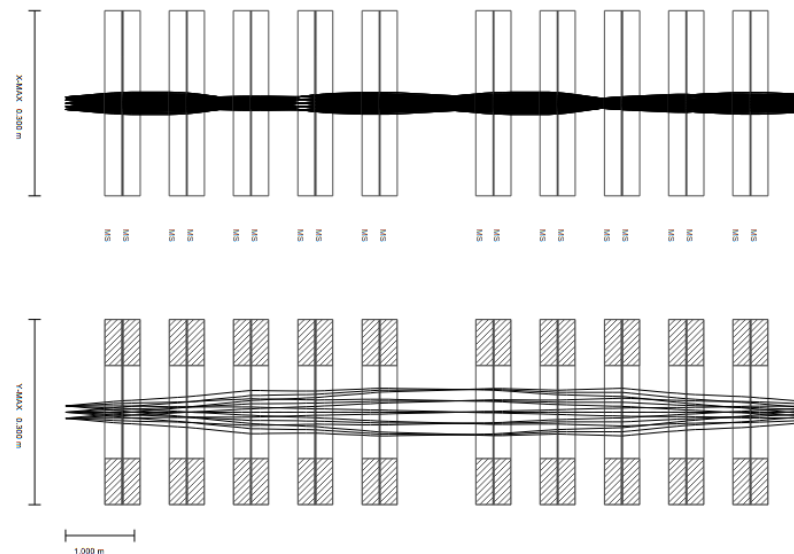
SYSTEM PLOT



GICOSY RING LATTICE 1ST ORDER

BE AM PLOT

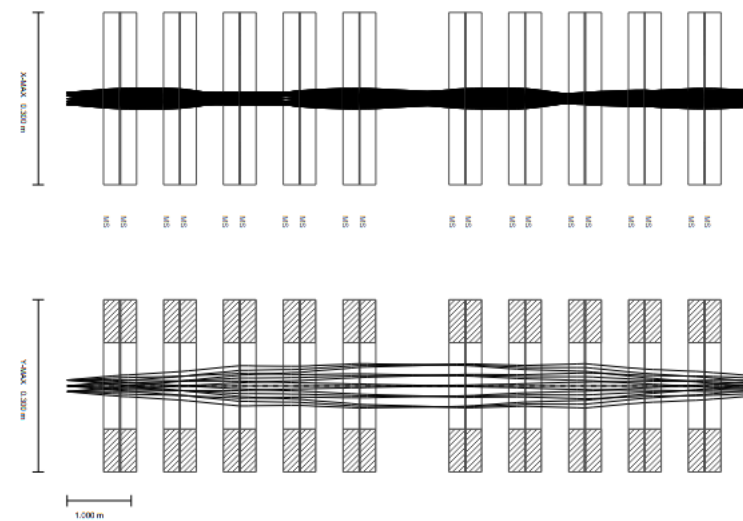
xxxxxxx yyyyyy



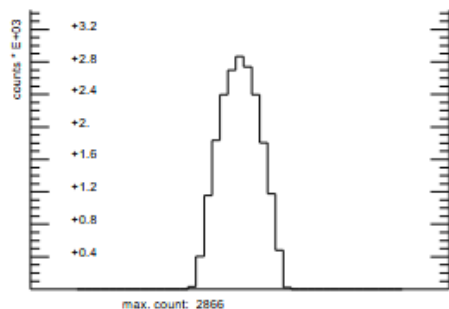
GICOSY RING LATTICE 3RD ORDER

BEAM PLOT

xxxxxxx yyyyyy



GICOSY RING LATTICE 1ST ORDER



PHASESPACE PLOT

XX.XX.XXX YY:YY:YY

PHASESPACE PLOT OF (X,Y) AT 5.382 M

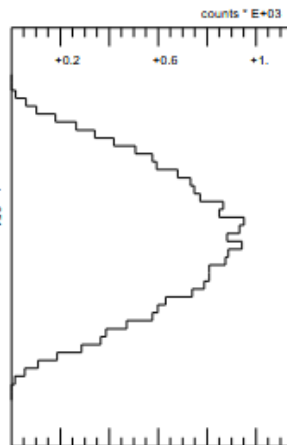
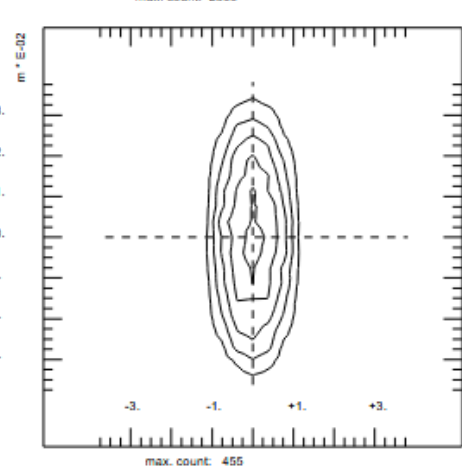
20000 PARTICLES STARTED
20000 PARTICLES IN WINDOW

PARTICLES STARTED IN PHASESPACE

X = +/- 0.01000000
A = +/- 0.01000000
Y = +/- 0.01000000
B = +/- 0.01000000
G = +/- 0.00000000
F = +/- 0.00000000

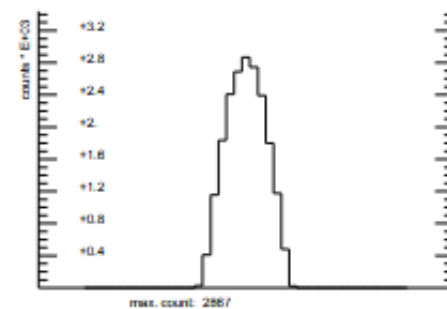
NUMBER OF MASSES : 1
NUMBER OF ENERGIES : 1

CALC MODE: SYSTEM MATRIX
CALC ORDER: 1



m * E+02

GICOSY RING LATTICE 3RD ORDER



PHASESPACE PLOT

XX.XX.XXX YY:YY:YY

PHASESPACE PLOT OF (X,Y) AT 5.382 M

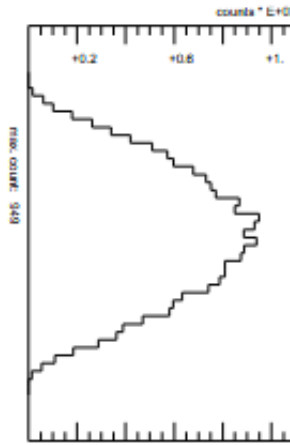
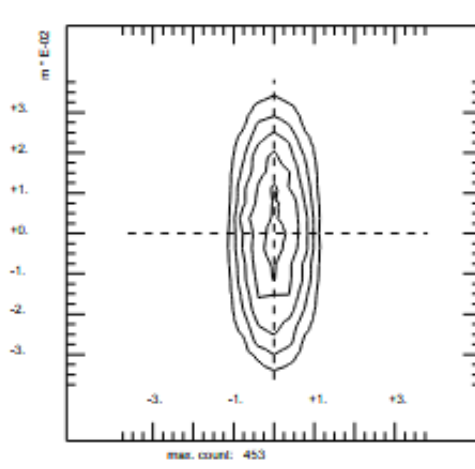
20000 PARTICLES STARTED
20000 PARTICLES IN WINDOW

PARTICLES STARTED IN PHASESPACE

X = +/- 0.01000000
A = +/- 0.01000000
Y = +/- 0.01000000
B = +/- 0.01000000
G = +/- 0.00000000
F = +/- 0.00000000

NUMBER OF MASSES : 1
NUMBER OF ENERGIES : 1

CALC MODE: SYSTEM MATRIX
CALC ORDER: 3

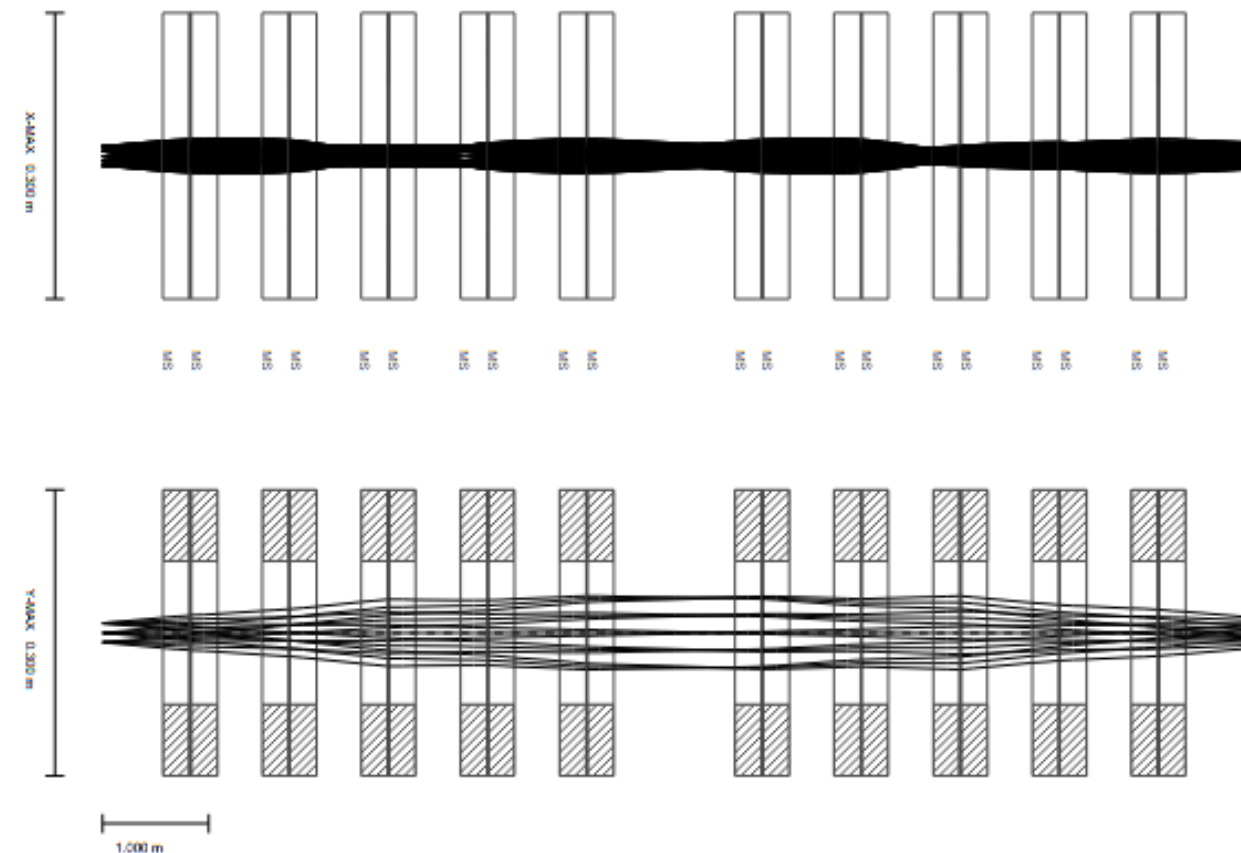


m * E+02

GICOSY RING LATTICE 3RD ORDER

BEAM PLOT

XXXX.XXXX YY:YY:YY

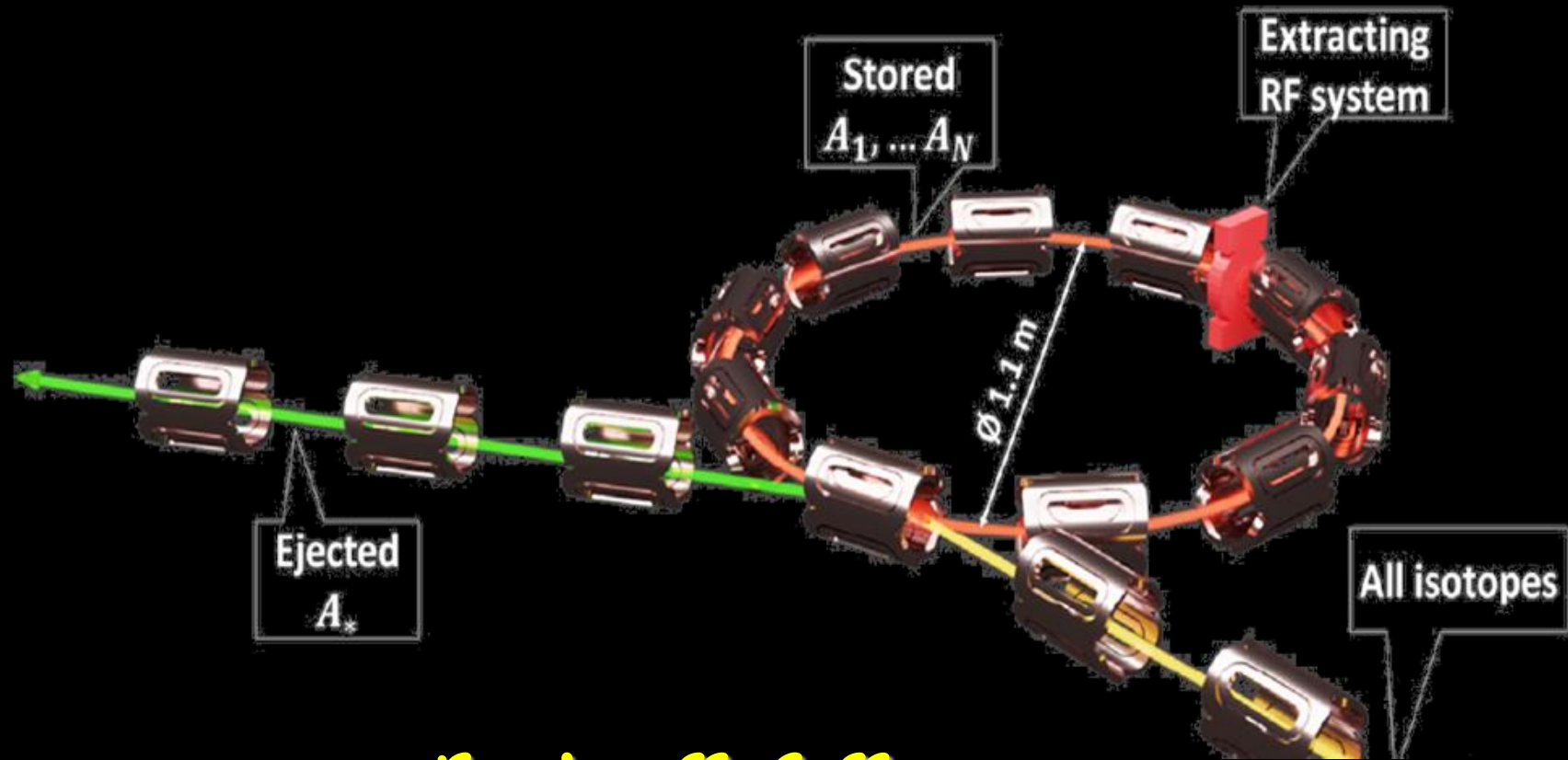


NON SYMPL. SYSTEM TRANSFER MATRIX AT PATH-LENGTH L= 1.076387634E+01 M

	X	A	Y	B	L
0	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00	0.000000E+00
1 X	-9.042560E-01	-3.697831E-01	0.000000E+00	0.000000E+00	3.020032E-01
2 A	4.930487E-01	-9.042560E-01	0.000000E+00	0.000000E+00	1.555213E+00
3 Y	0.000000E+00	0.000000E+00	-9.824202E-01	-5.137820E-02	0.000000E+00
4 B	0.000000E+00	0.000000E+00	6.783122E-01	-9.824202E-01	0.000000E+00
5 G	6.169563E-11	1.198060E-11	0.000000E+00	0.000000E+00	1.053589E+01
6 P	1.555213E+00	3.020032E-01	0.000000E+00	0.000000E+00	-5.379154E+00

Second
order

	X	A	Y	B	L
0	-3.992510E-15	-7.752964E-16	0.000000E+00	0.000000E+00	1.380925E-14
1 X	-9.042560E-01	-3.697831E-01	0.000000E+00	0.000000E+00	3.020032E-01
2 A	4.930487E-01	-9.042560E-01	0.000000E+00	0.000000E+00	1.555213E+00
3 Y	0.000000E+00	0.000000E+00	-9.824202E-01	-5.137820E-02	0.000000E+00
4 B	0.000000E+00	0.000000E+00	6.783122E-01	-9.824202E-01	0.000000E+00
5 G	6.169185E-11	1.198005E-11	0.000000E+00	0.000000E+00	1.053589E+01
6 P	1.555213E+00	3.020032E-01	0.000000E+00	0.000000E+00	-5.379154E+00
7 XX	2.645909E-01	-6.655959E-02	0.000000E+00	0.000000E+00	1.099048E+00
8 XA	-5.597938E-01	-6.855181E-01	0.000000E+00	0.000000E+00	5.946108E-01
9 XY	0.000000E+00	0.000000E+00	-1.203528E-01	-9.179330E-03	0.000000E+00
10 XB	0.000000E+00	0.000000E+00	-5.005299E-01	1.005142E-01	0.000000E+00
11 XG	2.496650E-11	-7.012224E-11	0.000000E+00	0.000000E+00	-9.485631E-12
12 XP	6.293989E-01	-1.397981E+00	0.000000E+00	0.000000E+00	-2.390683E-01
13 AA	-1.441373E+00	-1.226423E-01	0.000000E+00	0.000000E+00	1.578059E+00
14 AY	0.000000E+00	0.000000E+00	-2.248769E-02	-4.727040E-02	0.000000E+00
15 AB	0.000000E+00	0.000000E+00	-2.577557E+00	-7.967444E-02	0.000000E+00
16 AG	1.248387E-10	6.431881E-11	0.000000E+00	0.000000E+00	-4.883584E-11
17 AP	3.640160E+00	1.621449E+00	0.000000E+00	0.000000E+00	3.240930E-01
18 YY	2.117293E-02	7.091099E-03	0.000000E+00	0.000000E+00	1.125846E-01
19 YB	-1.103379E-01	9.252073E-02	0.000000E+00	0.000000E+00	-8.149914E-02
20 YG	0.000000E+00	0.000000E+00	1.003806E-11	-8.940989E-12	0.000000E+00
21 YP	0.000000E+00	0.000000E+00	2.530516E-01	-1.740200E-01	0.000000E+00
22 BB	-1.273749E+00	-2.866837E-01	0.000000E+00	0.000000E+00	1.683449E+00
23 BG	0.000000E+00	0.000000E+00	1.290162E-10	2.882518E-12	0.000000E+00
24 BP	0.000000E+00	0.000000E+00	3.930739E+00	7.266868E-02	0.000000E+00
25 GG	-9.124344E-11	-1.771849E-11	0.000000E+00	0.000000E+00	-1.020115E+01
26 GP	1.325233E-10	1.424544E-10	0.000000E+00	0.000000E+00	9.866406E+00
27 PP	-6.297656E-01	1.197929E+00	0.000000E+00	0.000000E+00	-1.396556E-01



That's all folks