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RHIC May 99 Commissioning Optics

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May 1999

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RHIC May 99 Commissioning Optics

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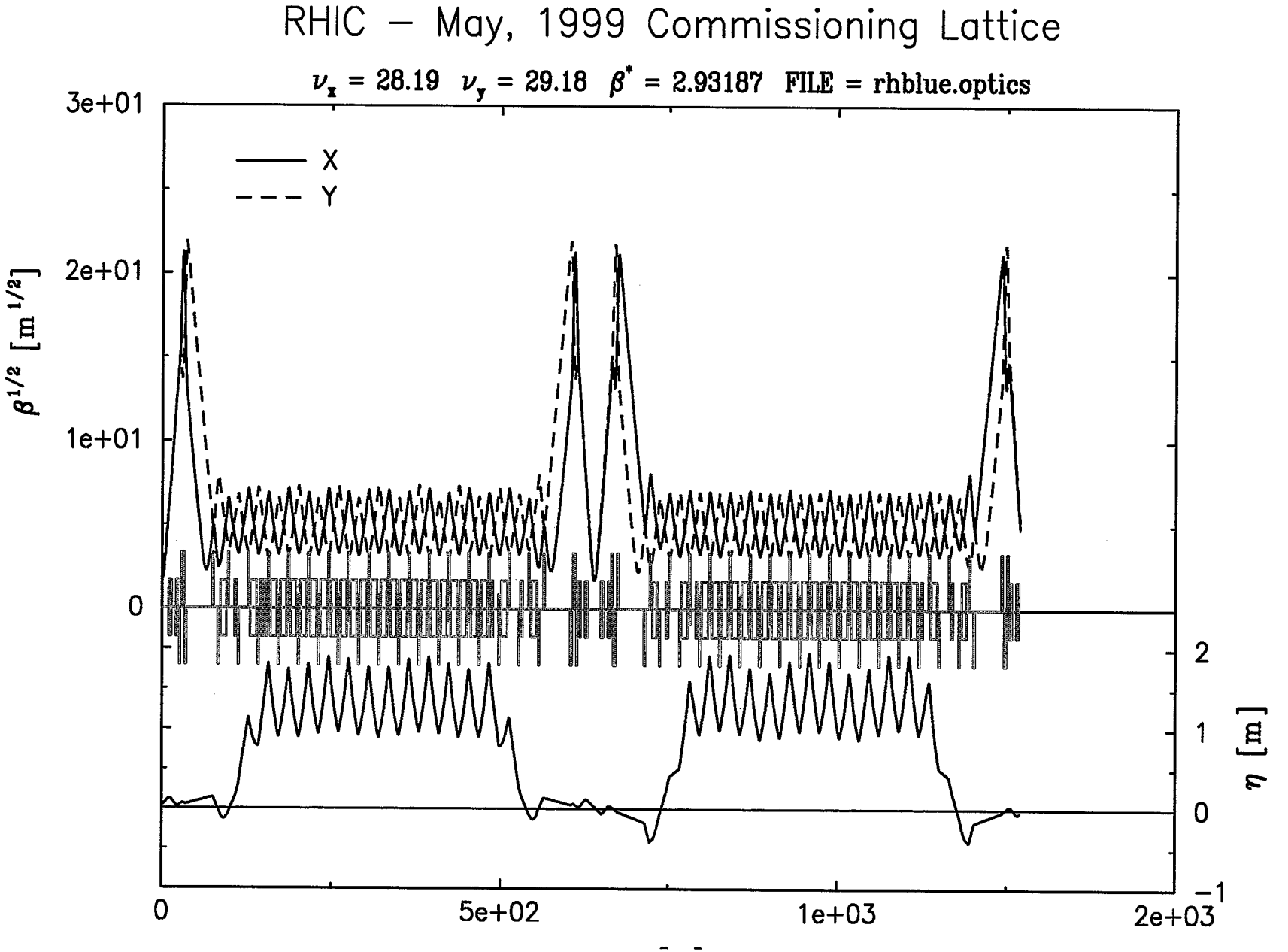
The following is a list of parameters for the May 1999 commissioning optics, denoted by "may99comm". This optics is different from the nominal injection optics since there will not be any bi-polar power supplies yet. The β^* will not be changeable at this time. However, the tunes, chromaticities and many other parameters can be changed during this commissioning. Below is a list of optics parameters for tne May 1999 commissioning exercise:

Parameter Symbol	Comment	Value
C	Circumference	3833.845181 m
α	Momentum Compaction Factor	0.0189165
γ_T	Gamma Transition	22.992134
β_x *(max)*	The maximum Beta function, *x*	444.718 m
β_y *(max)*	The maximum Beta function, *y*	477.032 m
η_x *(max)*	The maximum Dispersion, *x*	1.932 m
η_x *(min)*	The minimum Dispersion, *x*	-0.411 m
ν_x	The *x* tune	28.19
ν_y	The *y* tune	29.18


RHIC – May, 1999 Commissioning Lattice
ν_x = 28.19 ν_y = 29.18 β^* = 2.93187 FILE = rhblue.optics
X
Y
$\beta^{1/2}$ [m$^{1/2}$]
3e+01
2e+01
1e+01
0
η [m]
2
1
0
−1
0
5e+02
1e+03
2e+03