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Dynamic Aperture and the Role of BC2

G. Parzen

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Collider Accelerator Department
Brookhaven National Laboratory

U.S. Department of Energy
USDOE Office of Science (SC)

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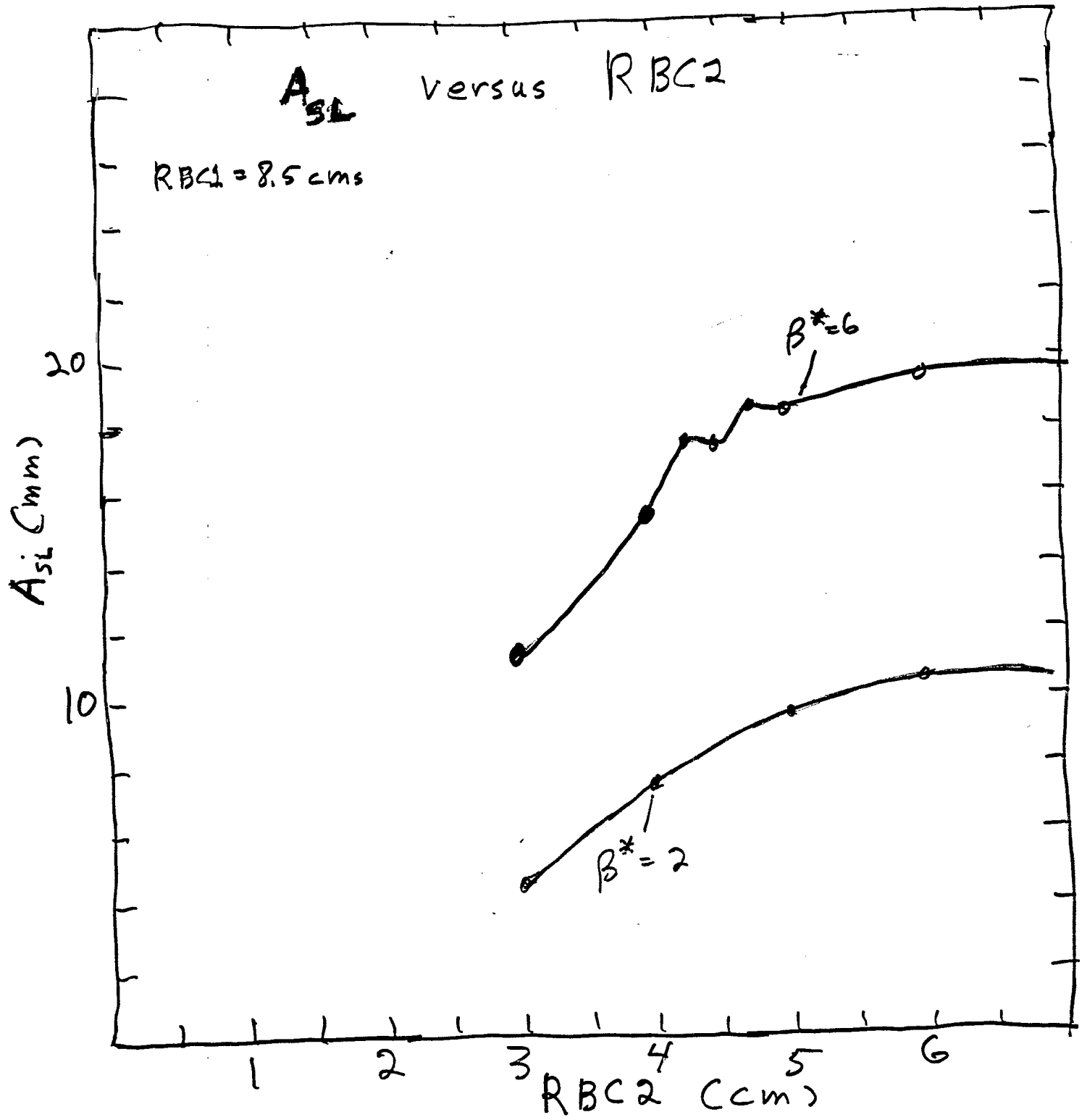
Effect of the BC2 Radius on the Dynamic Aperture

β^* (m)	RBC2 (cm)	RBC1 (cm)	A_{SL} (mm, $\varepsilon_x = \varepsilon_y$)
6	4	8.5	15.5
6	5	10	18.5
2	4	8.5	7.5
2	5	10	8.5

Decreasing RBC2 from 5 cm to 4cm gives about 15% loss in aperture.

Plotting A_{SL} vs. RBC2, there appears to be a knee in the curve at about RBC2 = 5 cms. For RBC2 ≤ 4 cms, BC2 begins to play a dominating role in determining A_{SL}.


A_{SL} versus RBC2
RBC1 = 8.5 cms
$B^*=6$
$B^*=2$
A_{SL} (mm)
20
10
1
2
3
4
5
6
RBC2 (cm)