

Quadrupoles

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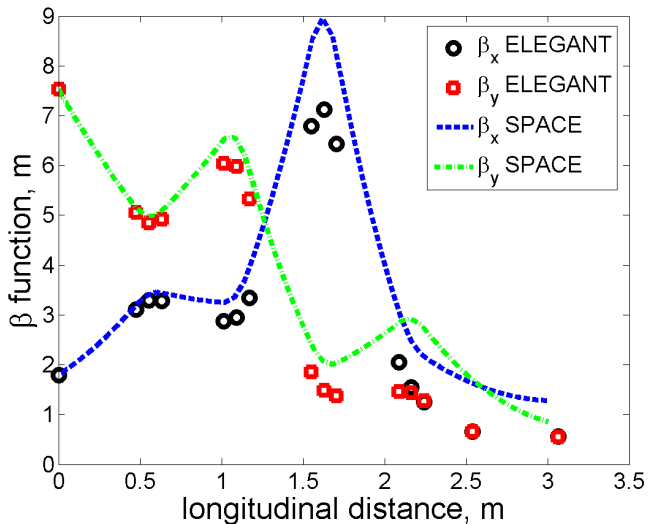
Beam Parameters at Entrance of Modulator

- $\varepsilon^* = 3 \pi$ mm mrad
- Peak current = 40 A
- $\beta_x = 1.8$ m
- $\beta_y = 7.5$ m
- $\alpha_x = -1.1$
- $\alpha_y = 2.9$

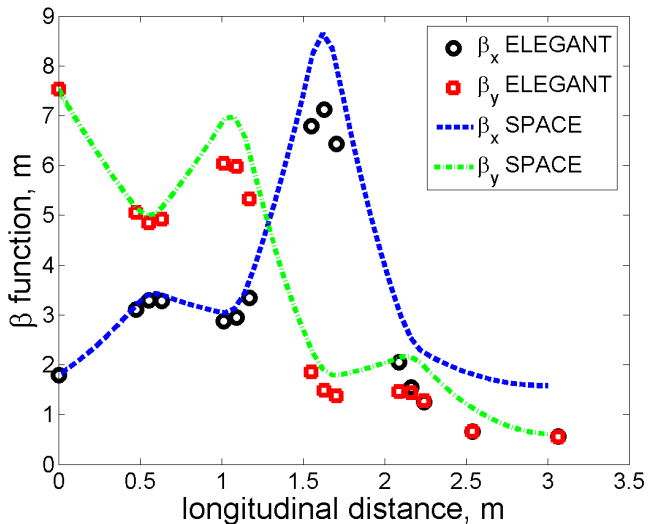
Quadrupole setting

| Element | Length, m | Magnetic field gradient, T/m |
|---------------|-----------|------------------------------|
| Drift | 0.4756 | |
| Q1 quadrupole | 0.1568 | 0.226 |
| Drift | 0.3802 | |
| Q2 quadrupole | 0.1568 | -0.403 |
| Drift | 0.3802 | |
| Q3 quadrupole | 0.1568 | 0.583 |
| Drift | 0.3802 | |
| Q4 quadrupole | 0.1568 | -0.393 |
| Drift | 0.8206 | |

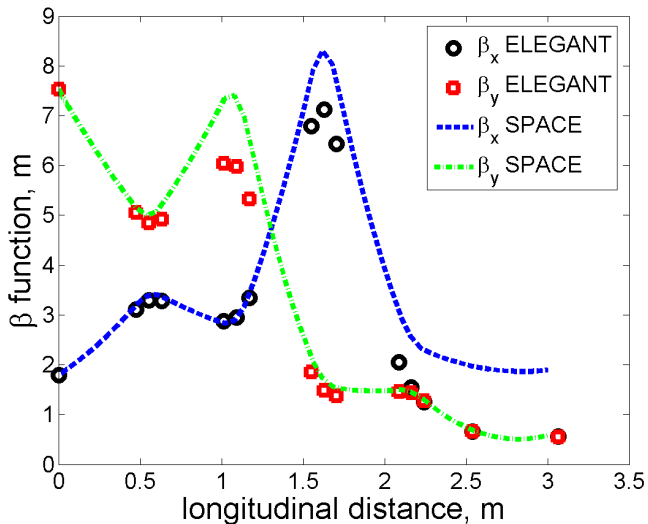
Q1, Q2, Q3, Q4



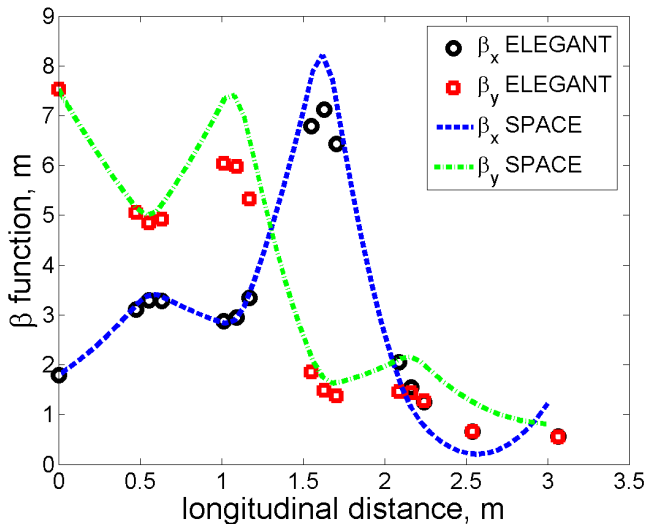
Q1*1.1, Q2*1.1, Q3, Q4



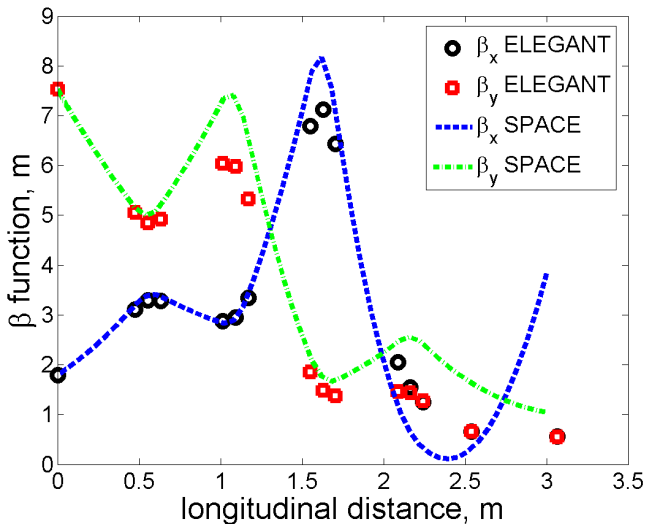
Q1*1.2, Q2*1.2, Q3, Q4



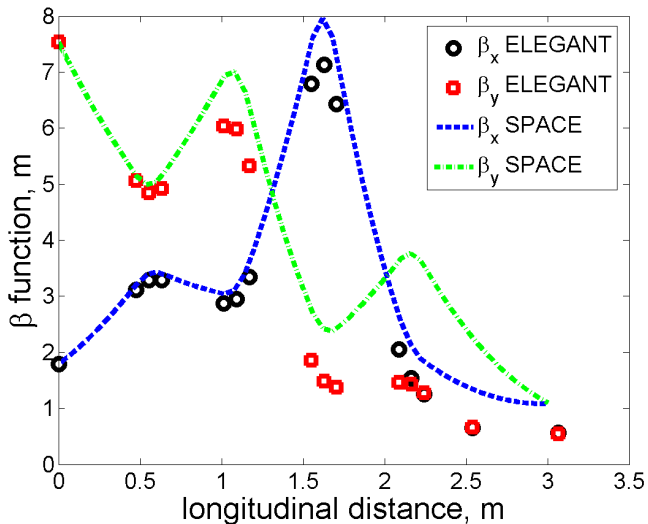
Q1*1.2, Q2*1.2, Q3*1.2, Q4



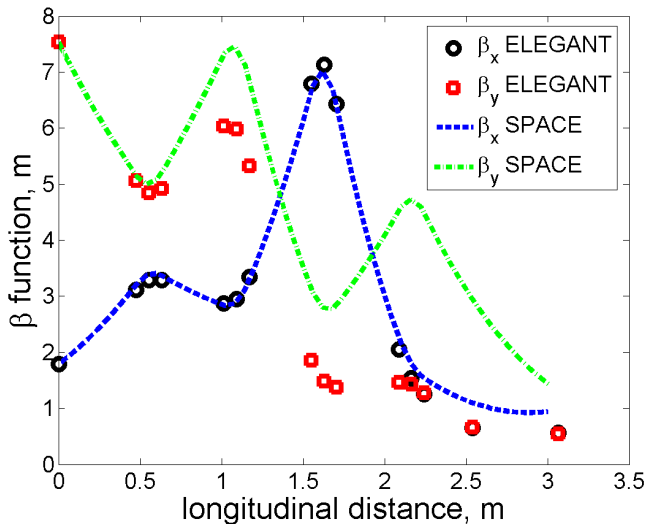
Q1*1.2, Q2*1.2, Q3*1.3, Q4



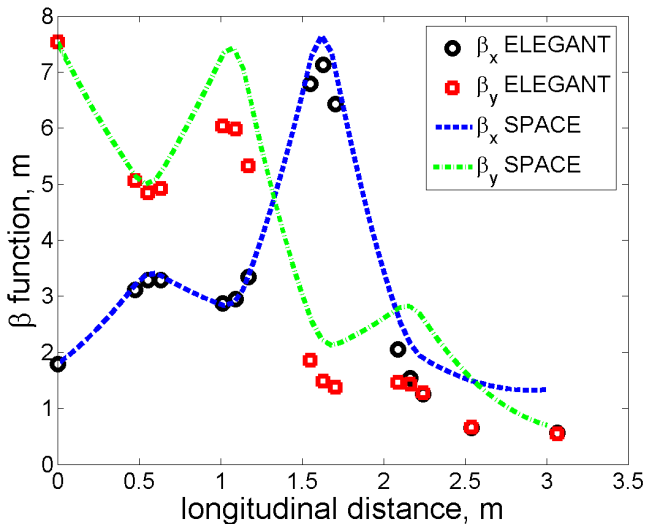
Q1*1.1, Q2, Q3, Q4



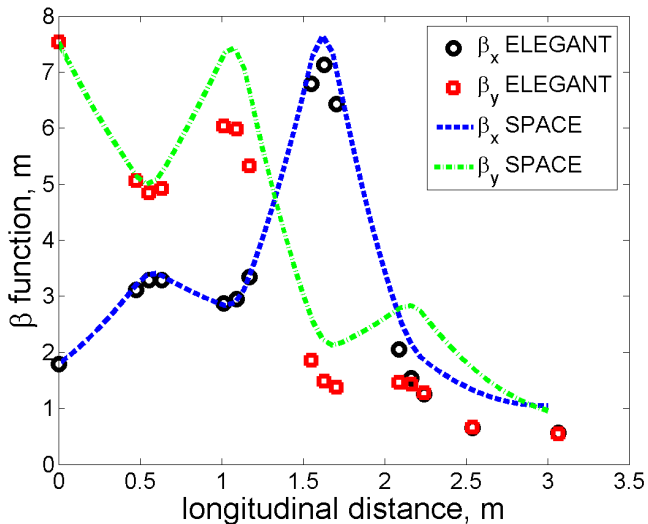
Q1*1.2, Q2, Q3, Q4



Q1*1.2, Q2*1.1, Q3, Q4



Q1*1.2, Q2*1.1, Q3, Q4*0.9



Q1*1.2, Q2*1.1, Q3, Q4*0.8

