

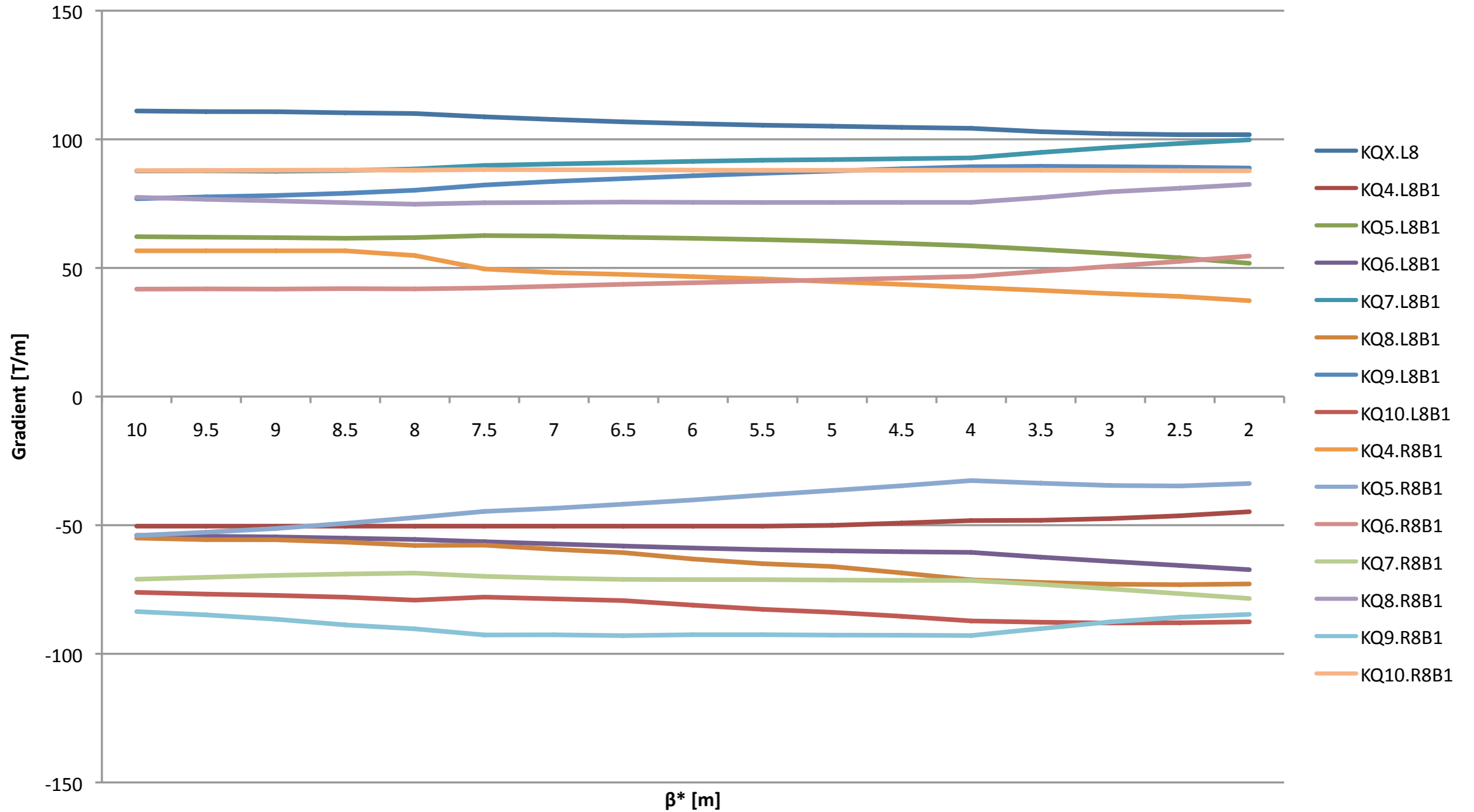
LCU meeting
3 / 11 / 2009

IR8 Squeeze at 3.5 TeV

Emanuele Liface

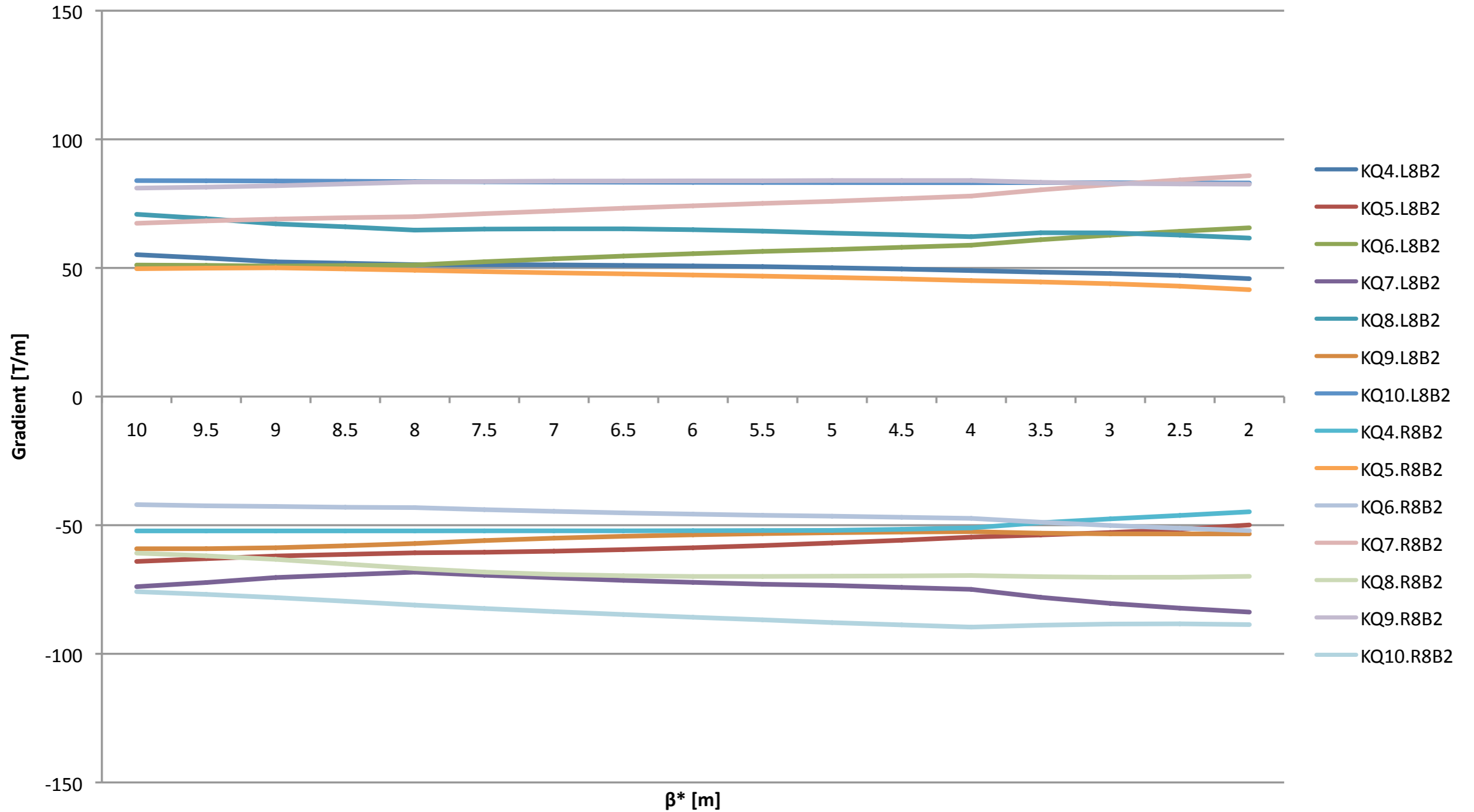
3.5 TeV Squeeze

Beam 1 Squeeze 3.5 TeV



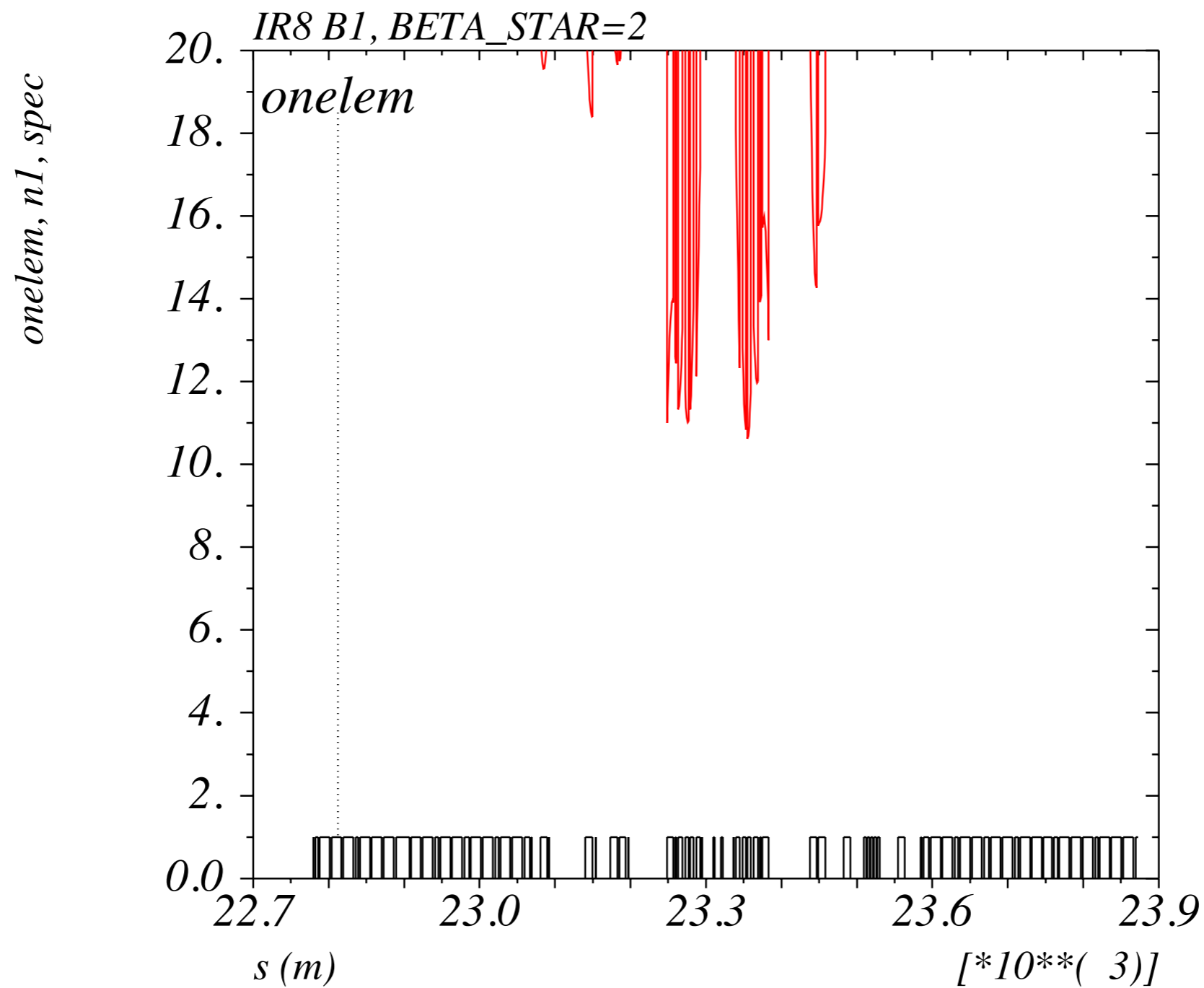
3.5 TeV Squeeze

Beam 2 Squeeze 3.5 TeV



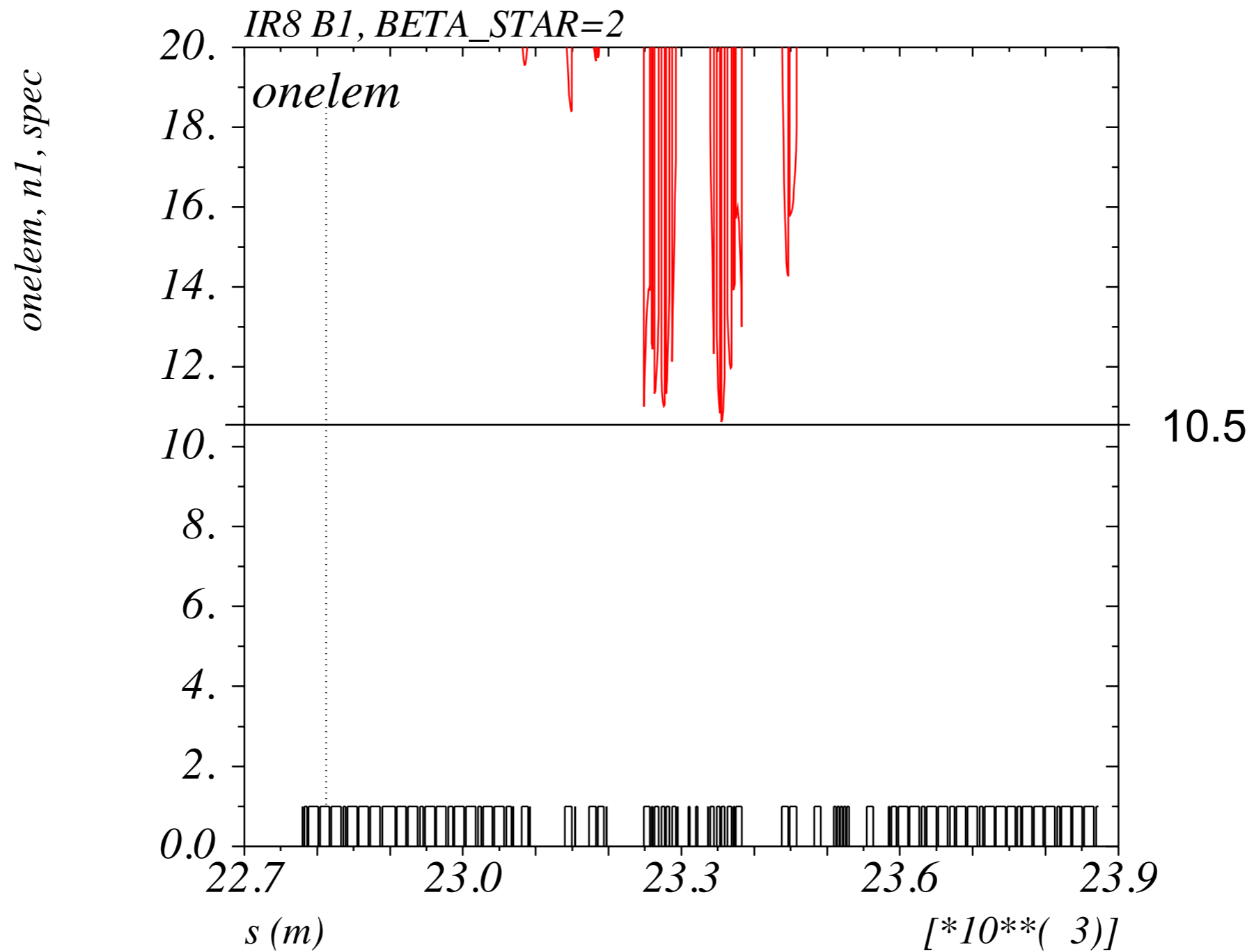
Beam 1 - $\beta^* = 2$ m

Spectrometer with good polarity



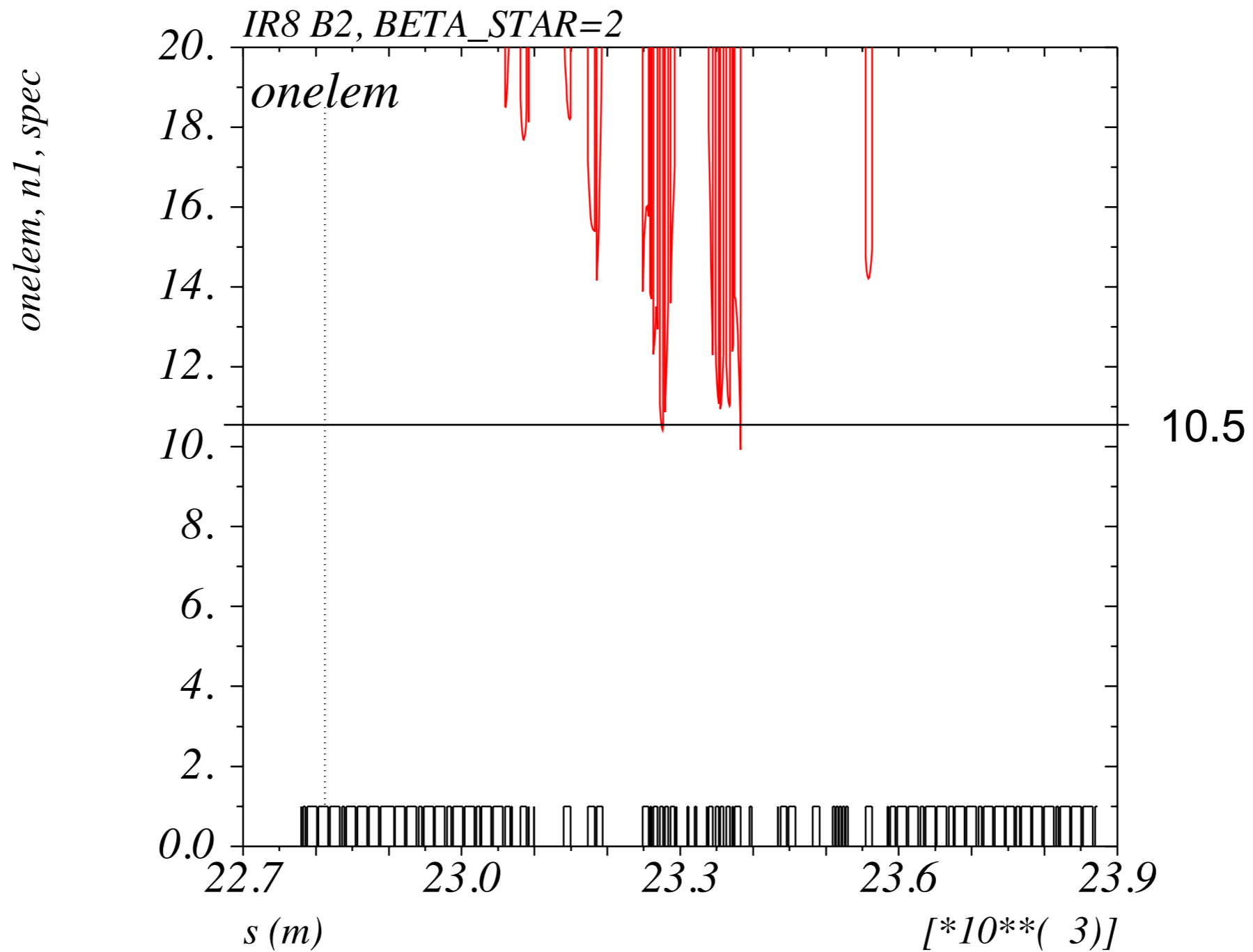
Beam 1 - $\beta^* = 2$ m

Spectrometer with good polarity



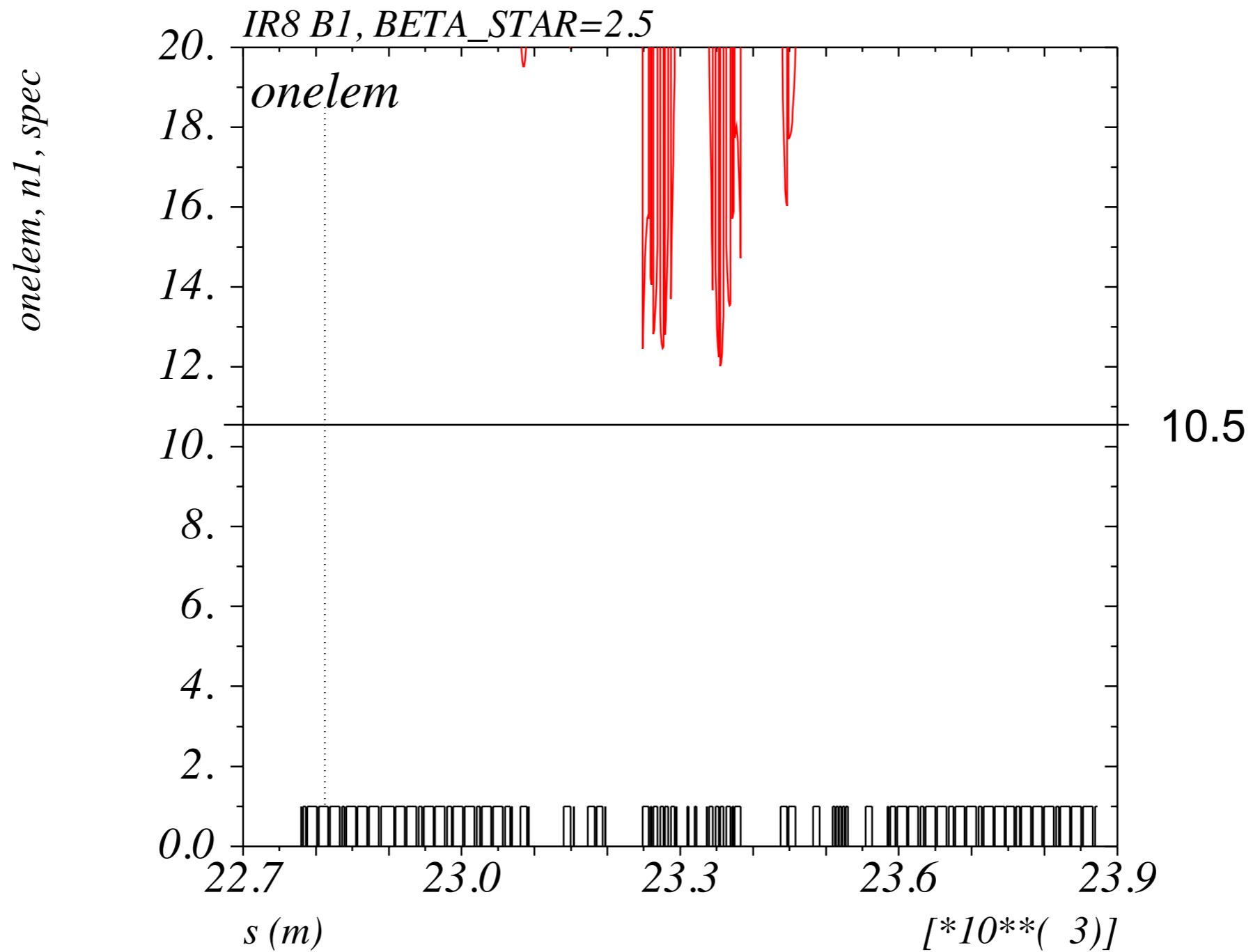
Beam 2 - $\beta^* = 2$ m

Spectrometer with good polarity



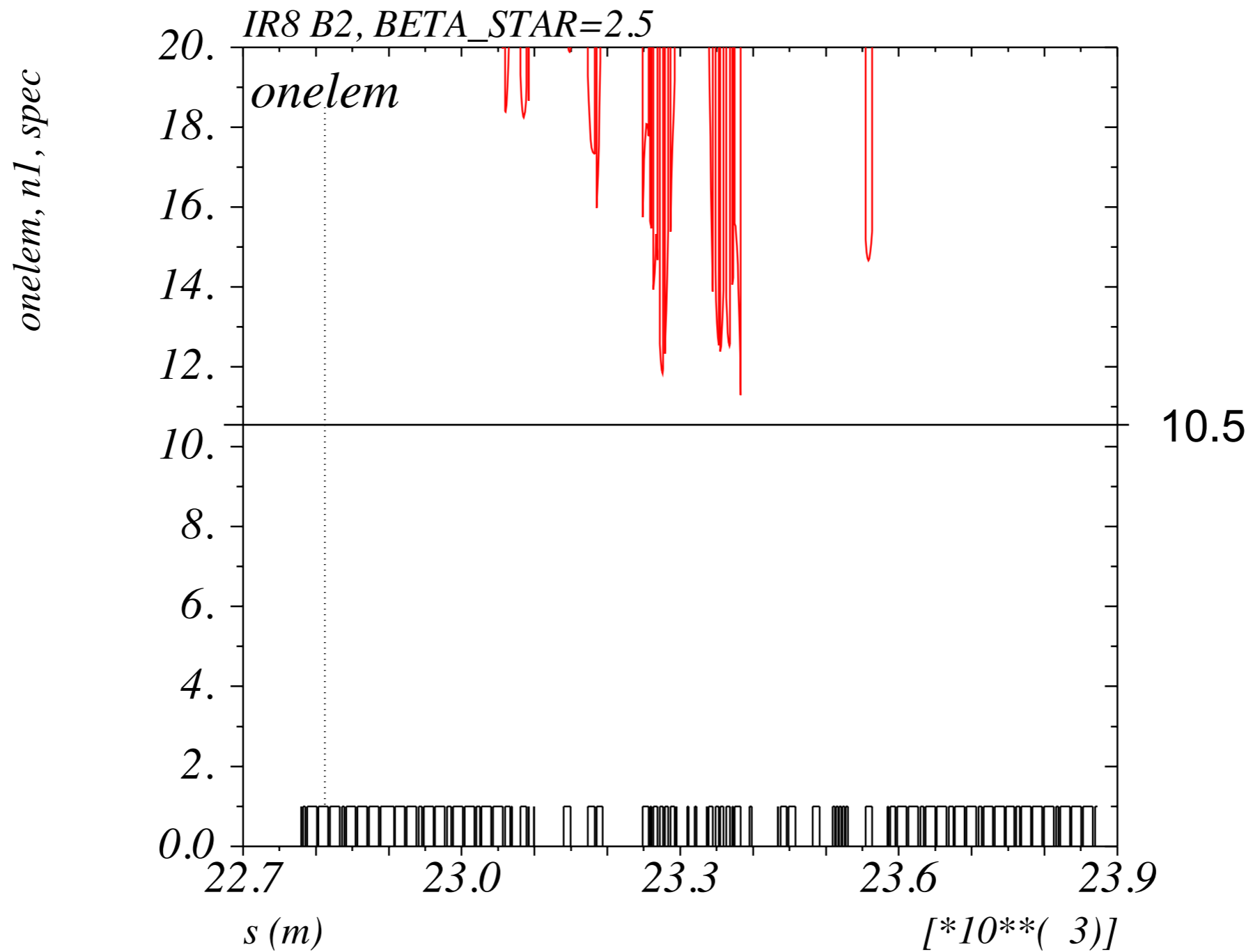
Beam 1 - $\beta^* = 2.5$ m

Spectrometer with good polarity



Beam 2 - $\beta^* = 2.5$ m

Spectrometer with good polarity



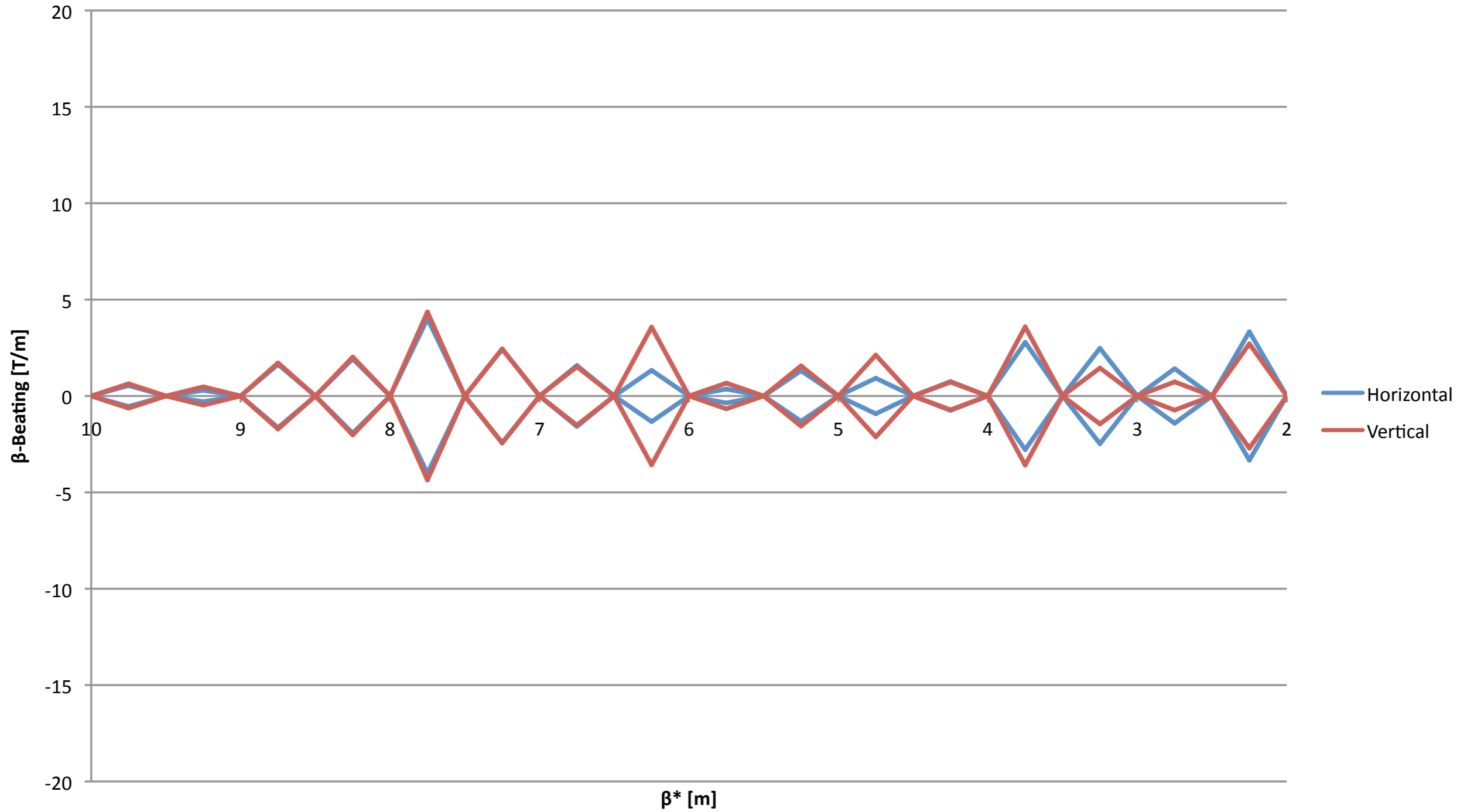
β^* from 10m to 2m
(2m is very close to the limit,
better to start with 2.5 or 3m?).

Crossing angle: $130\mu\text{rad}$ ($\sim 5\sigma$)

LHCb spectrometer angle: $270\mu\text{rad}$
(only one polarity)

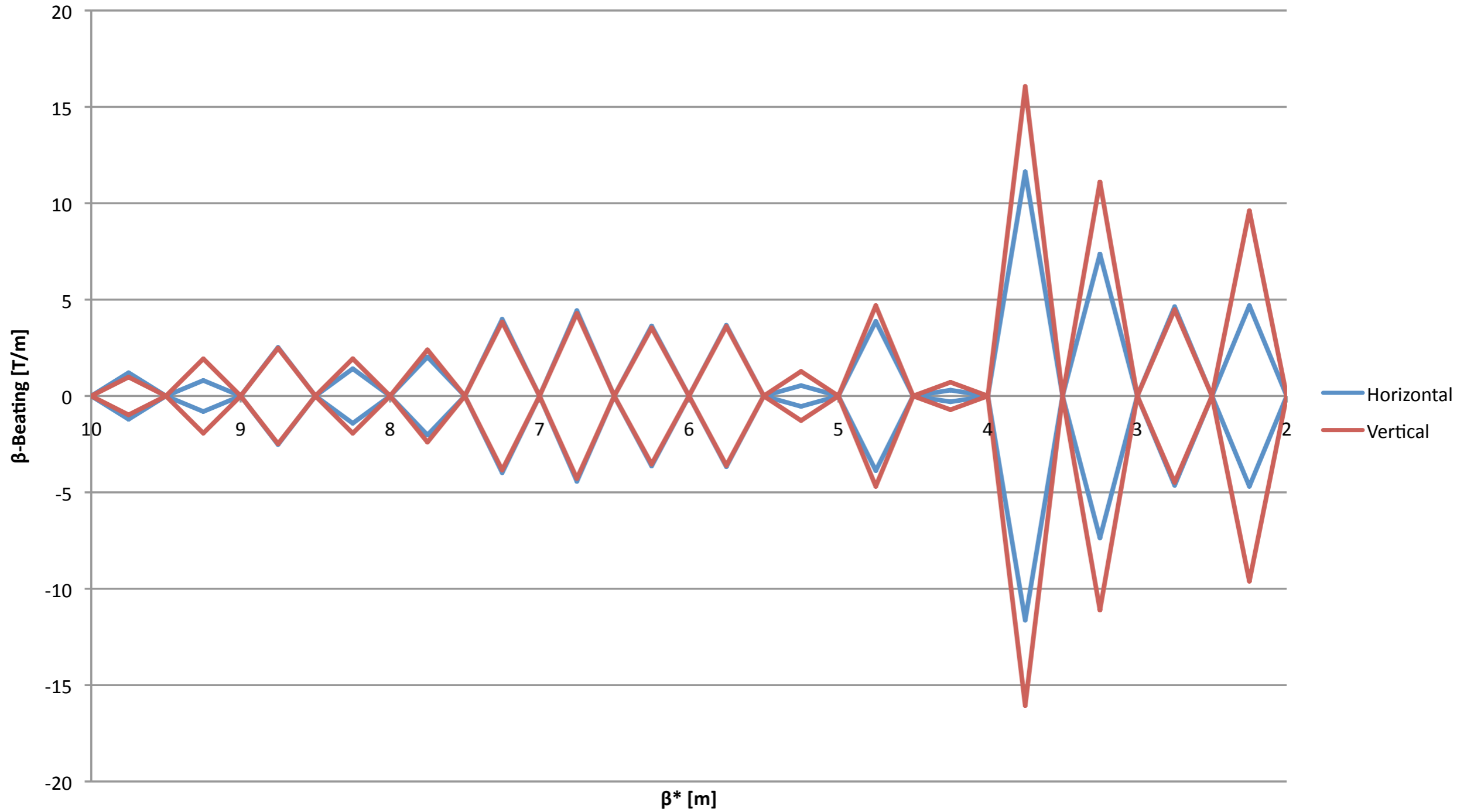
Beta Beating due to Interpolation

Beta Beating Beam1



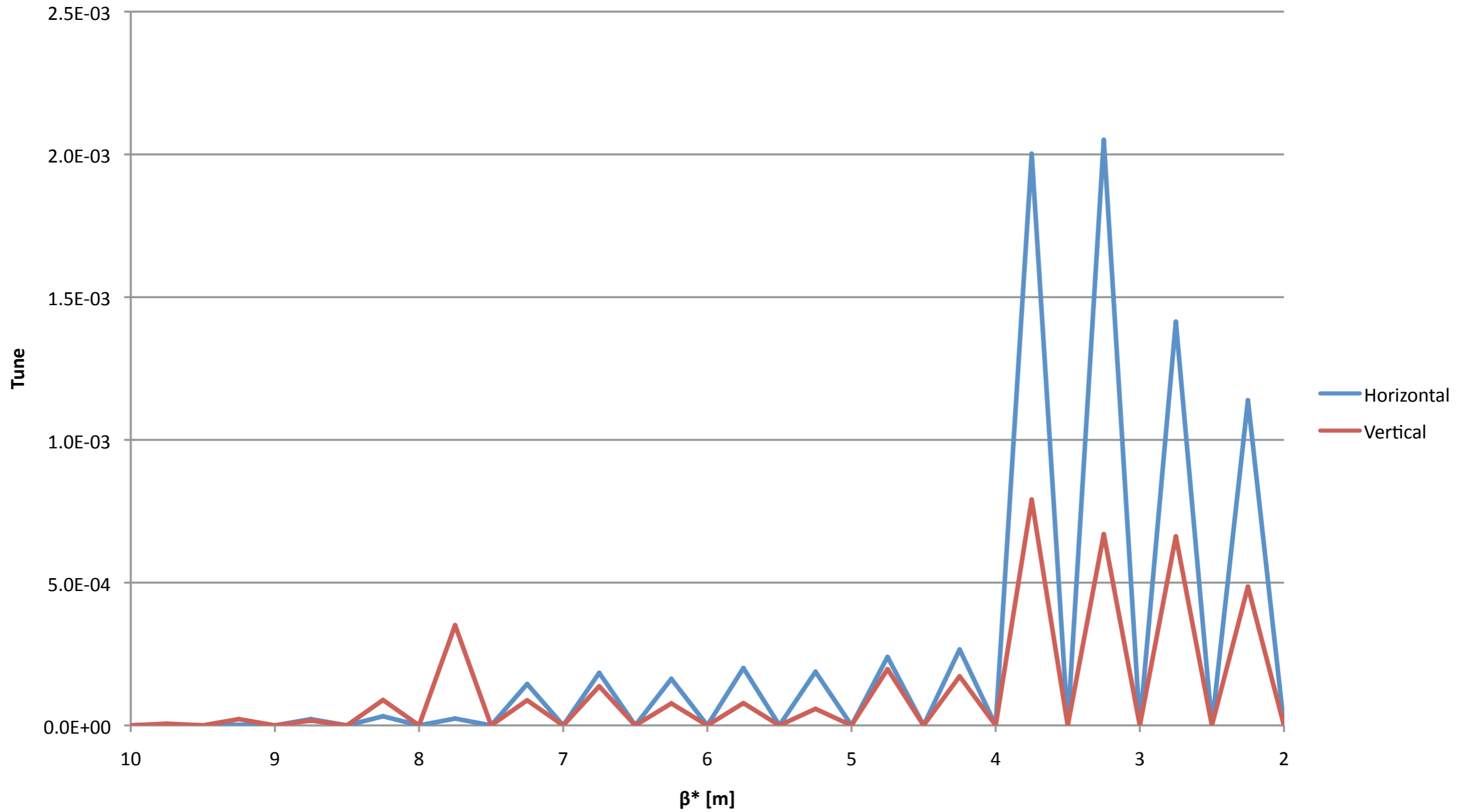
Beta Beating due to Interpolation

Beta Beating Beam2



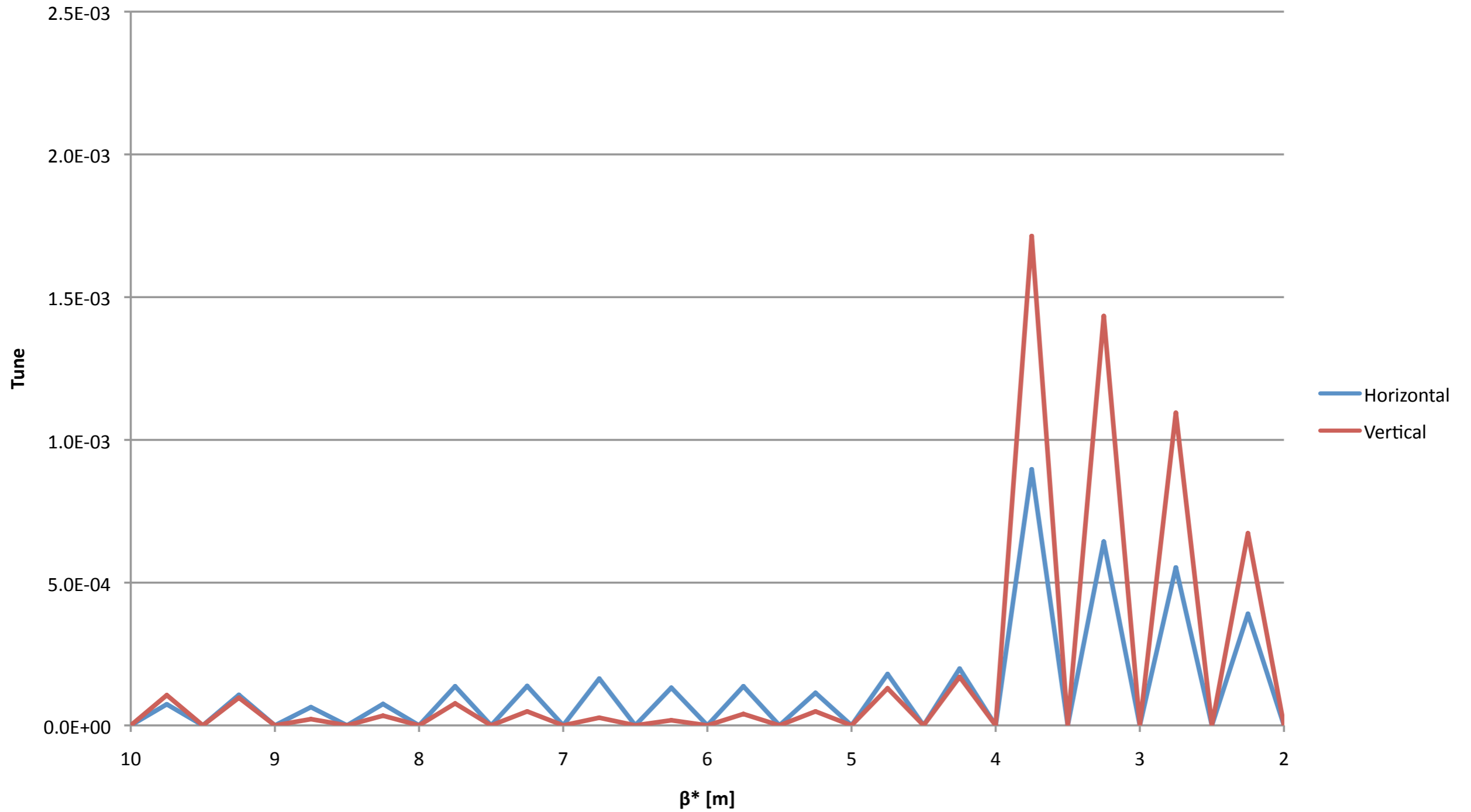
Tune change due to Interpolation

Tune Beam1



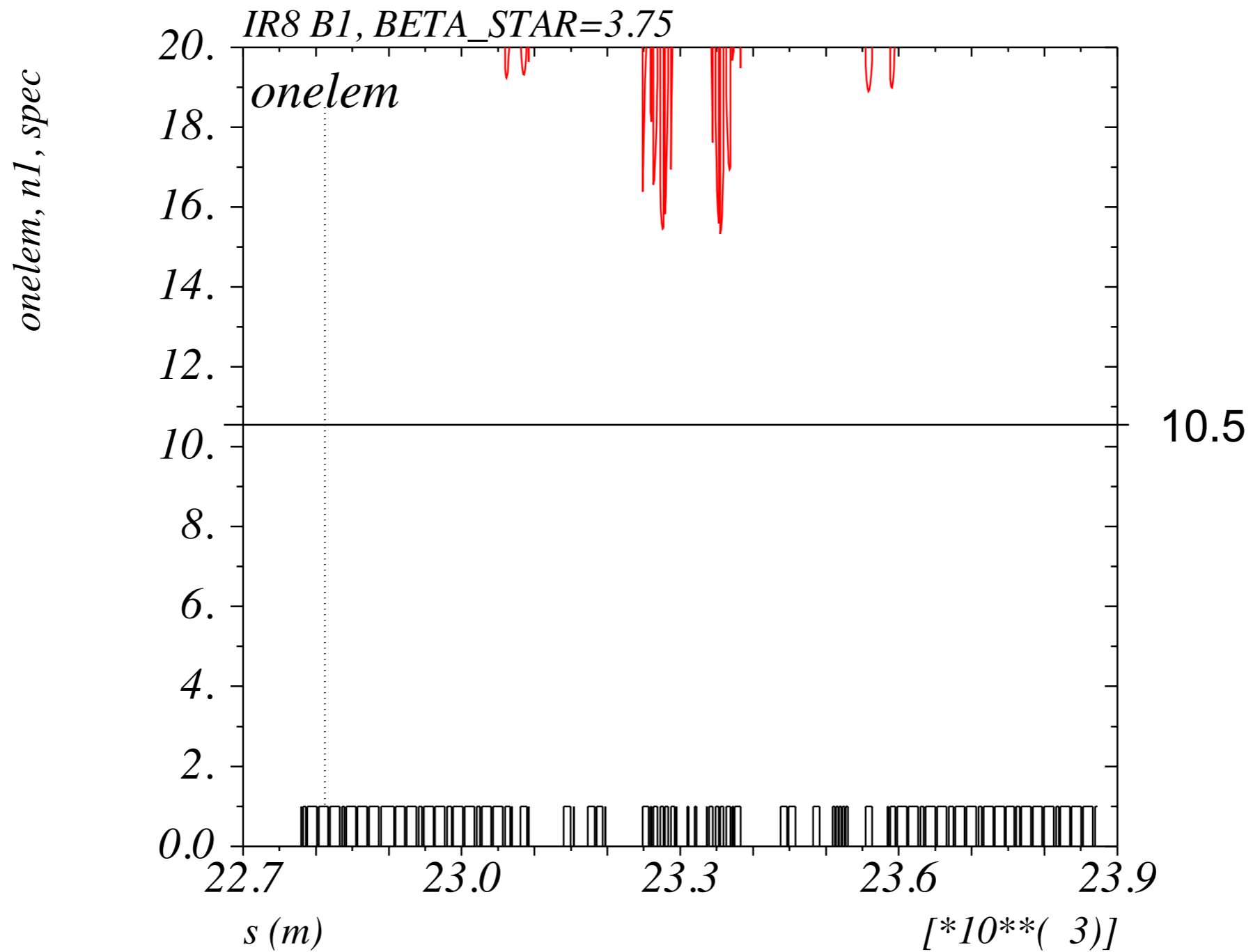
Tune change due to Interpolation

Tune Beam2



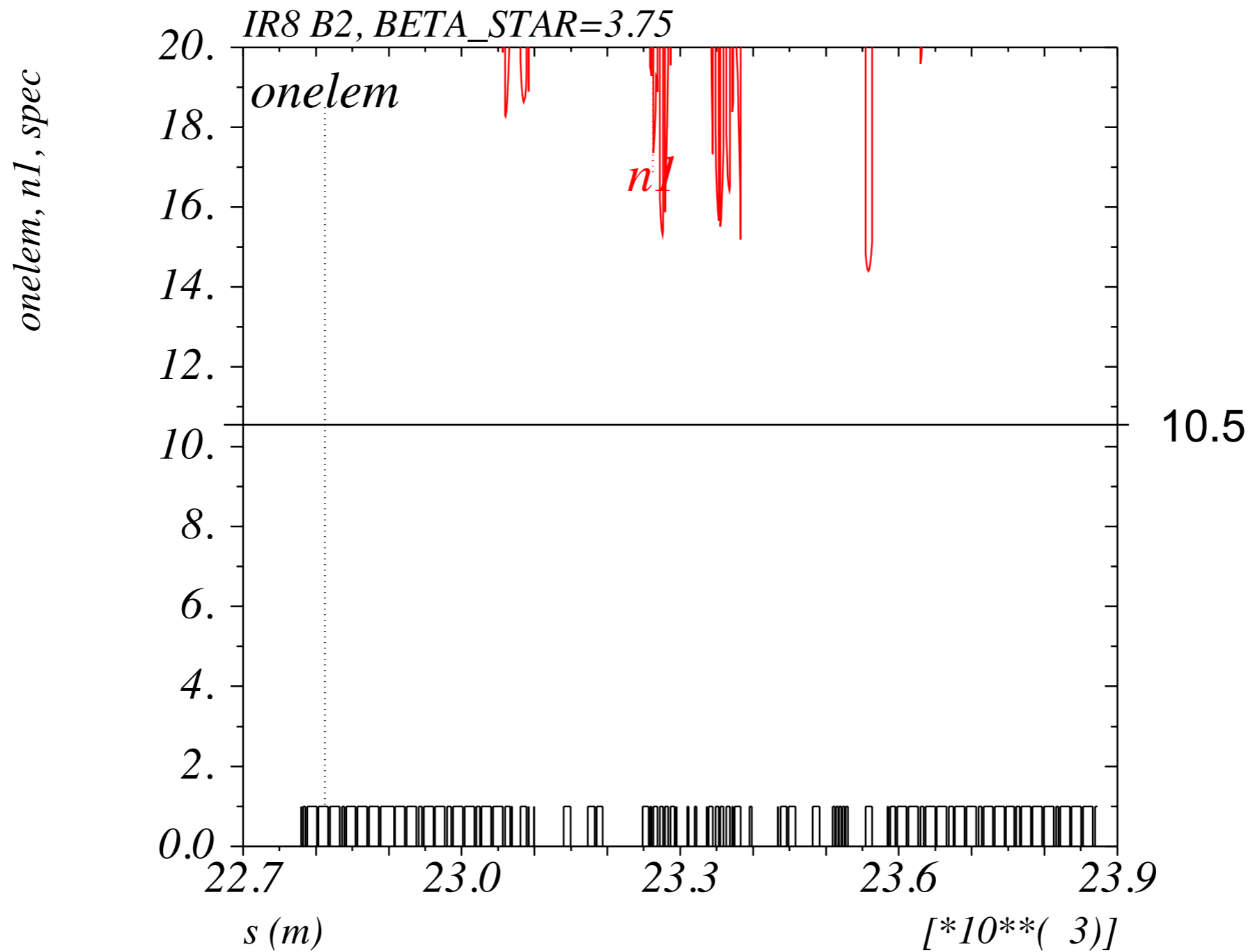
Beam 1 - $\beta^* = 3.75$ m

Spectrometer with good polarity



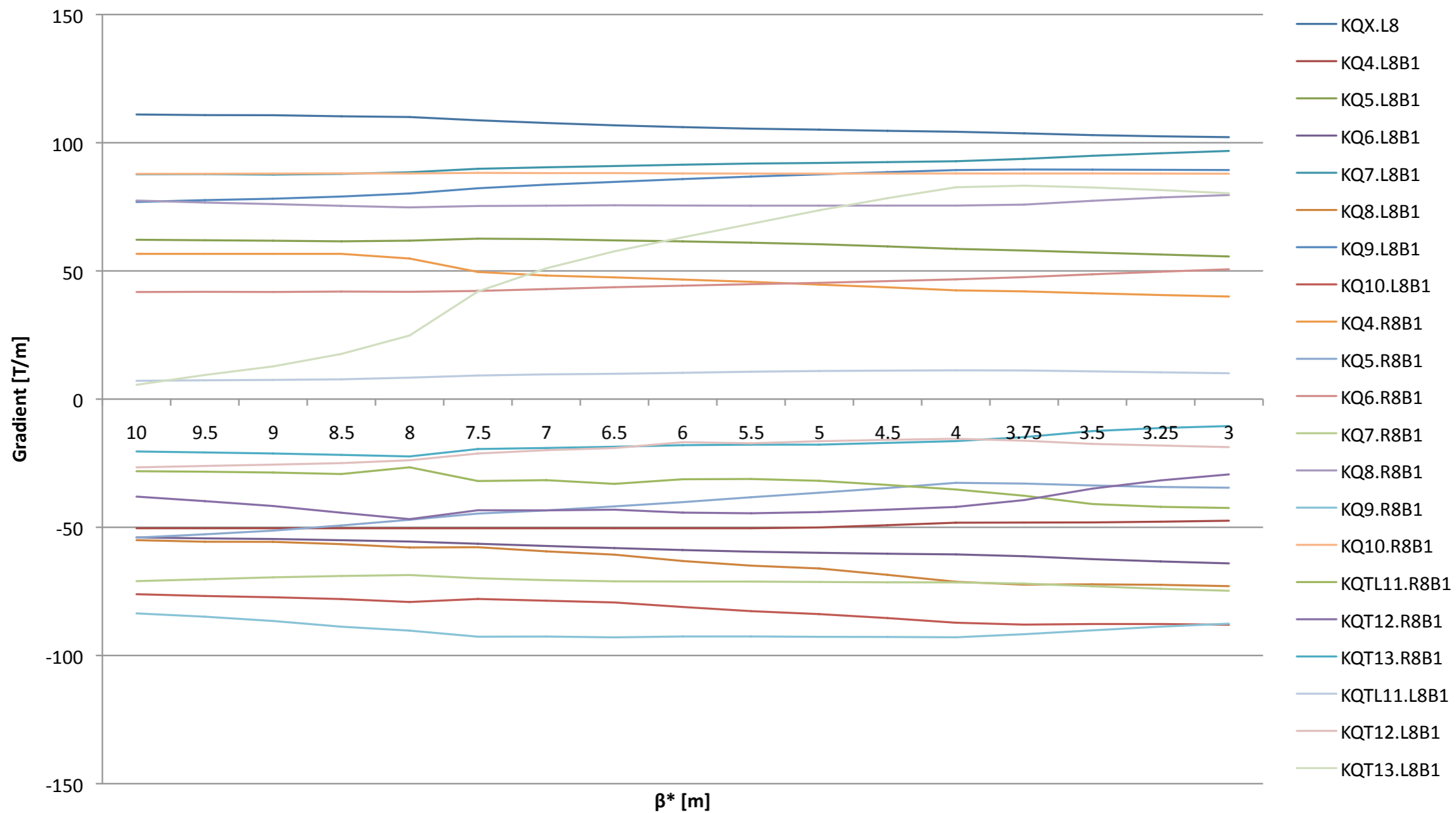
Beam 2 - $\beta^* = 3.75$ m

Spectrometer with good polarity

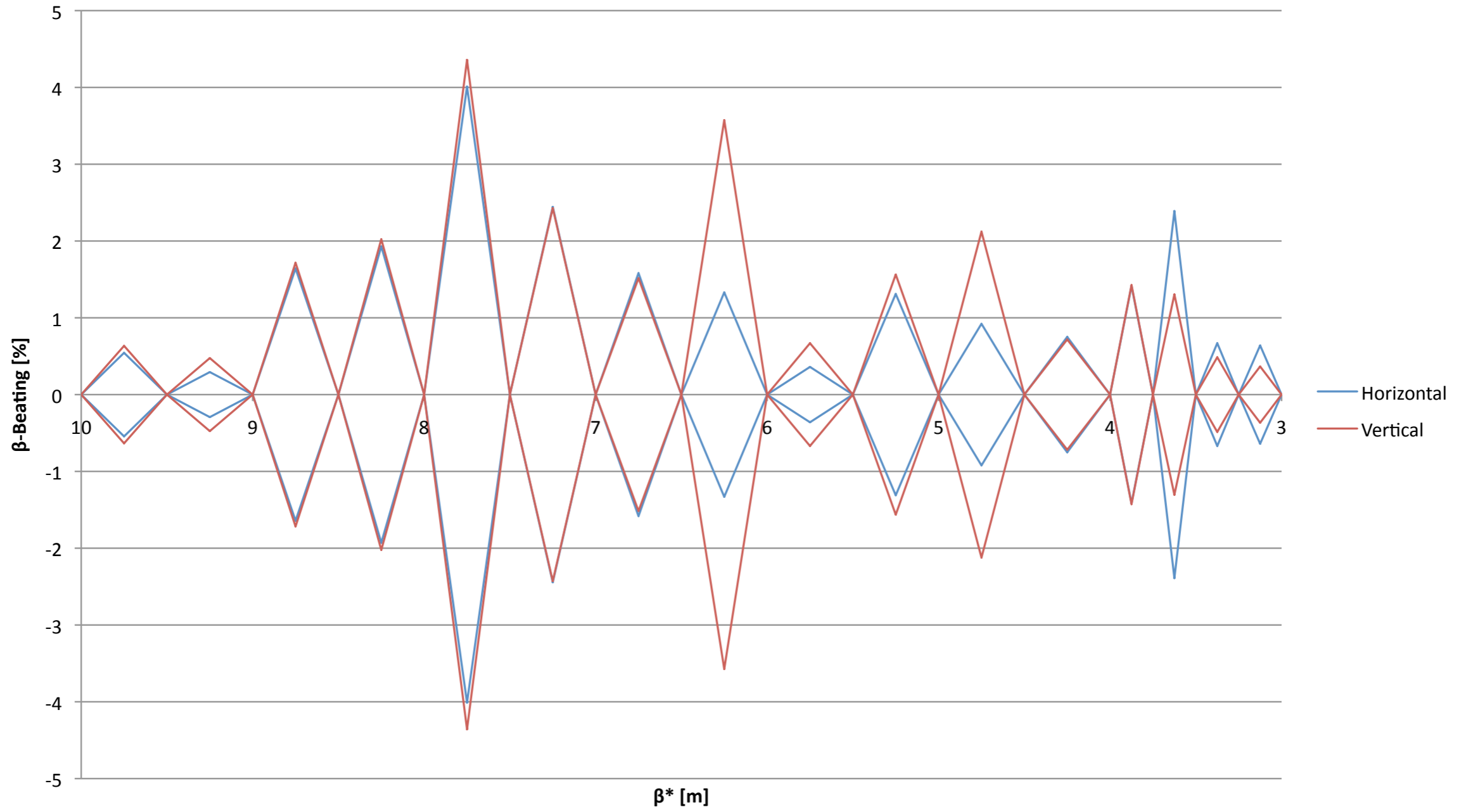


Additional point at $\beta^* = 3.75$ m?
(and below?)

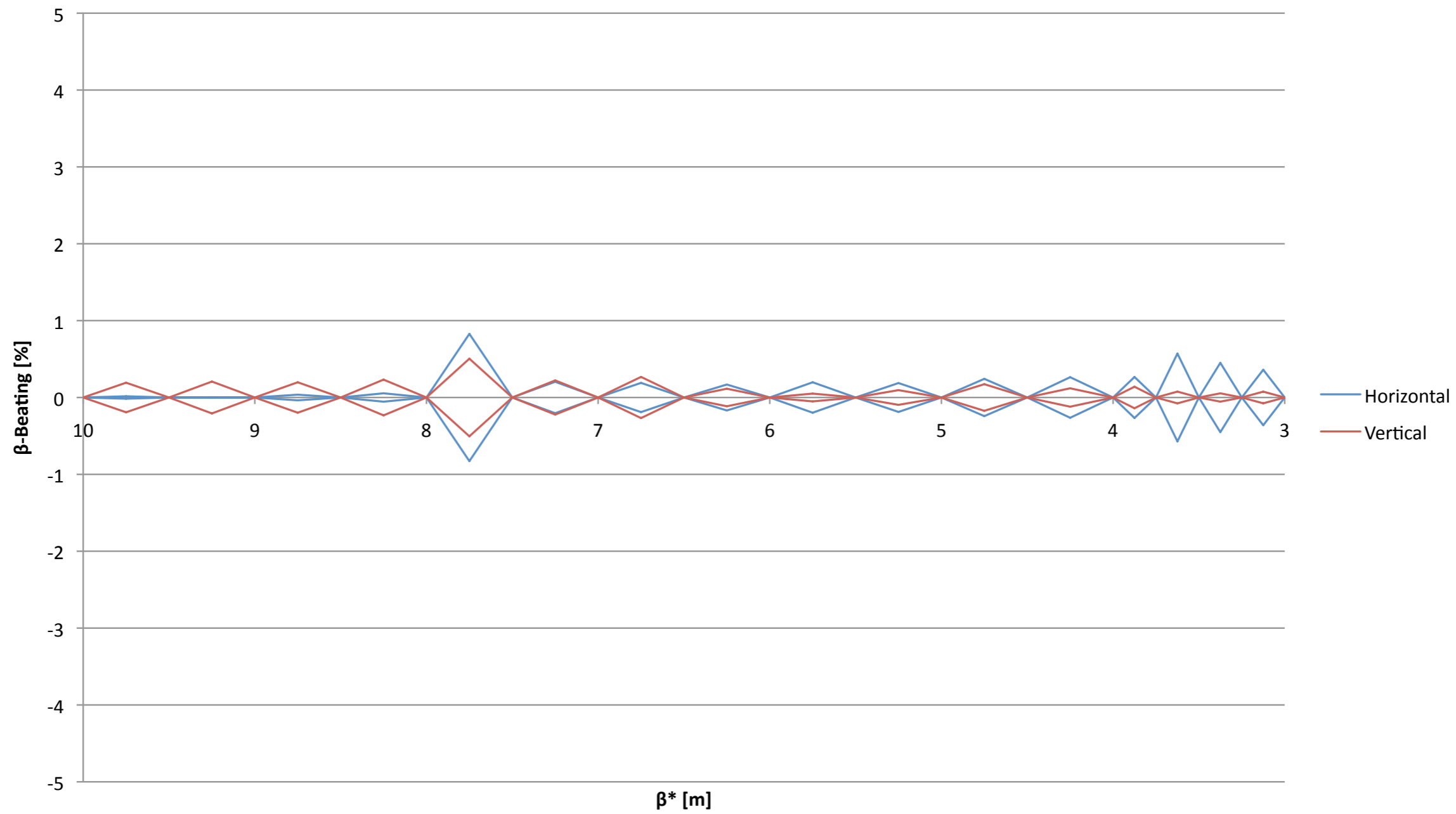
Beam 1 Squeeze 3.5 TeV



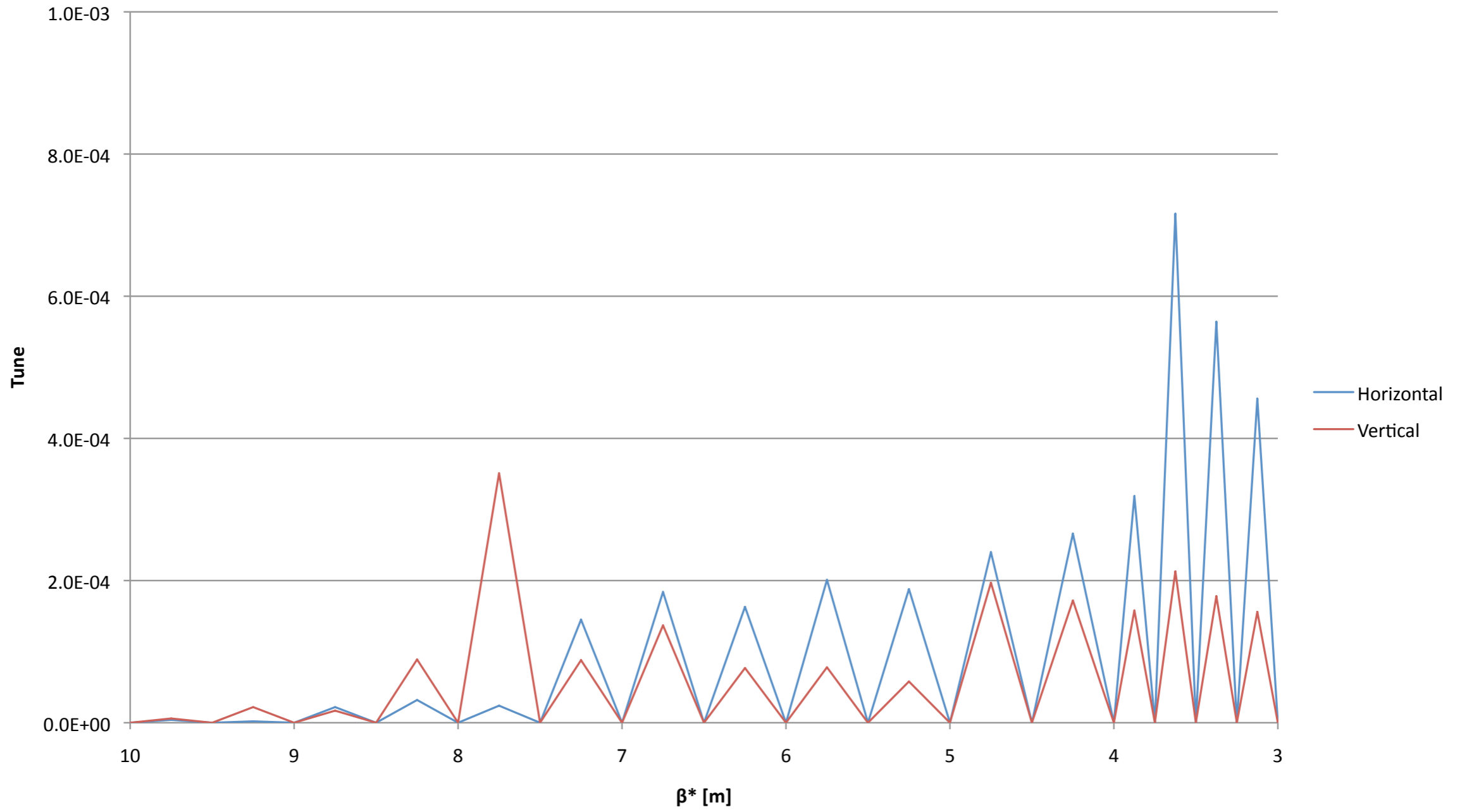
Beta Beating Beam1 in IR8



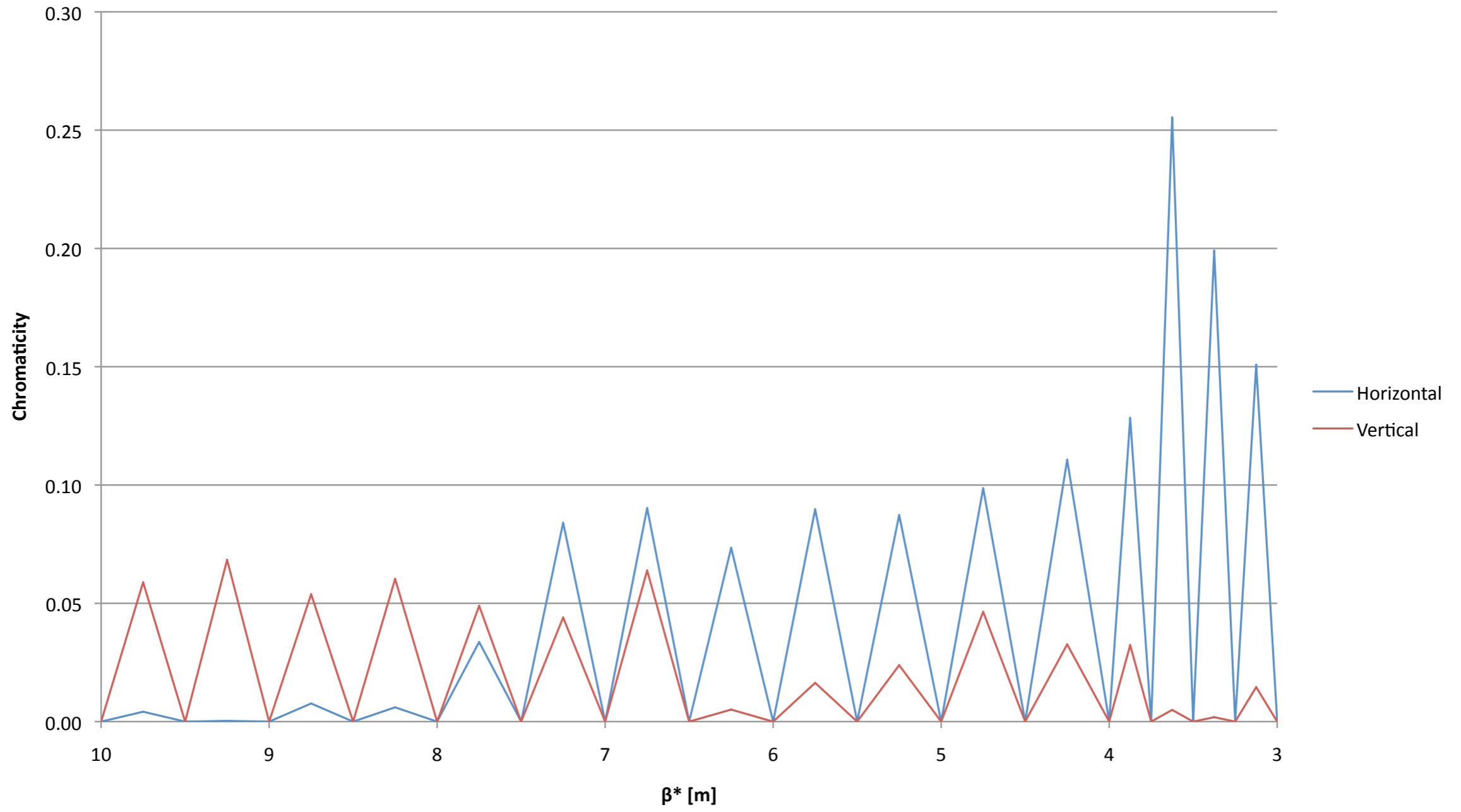
Beta Beating Beam1 outside IR8



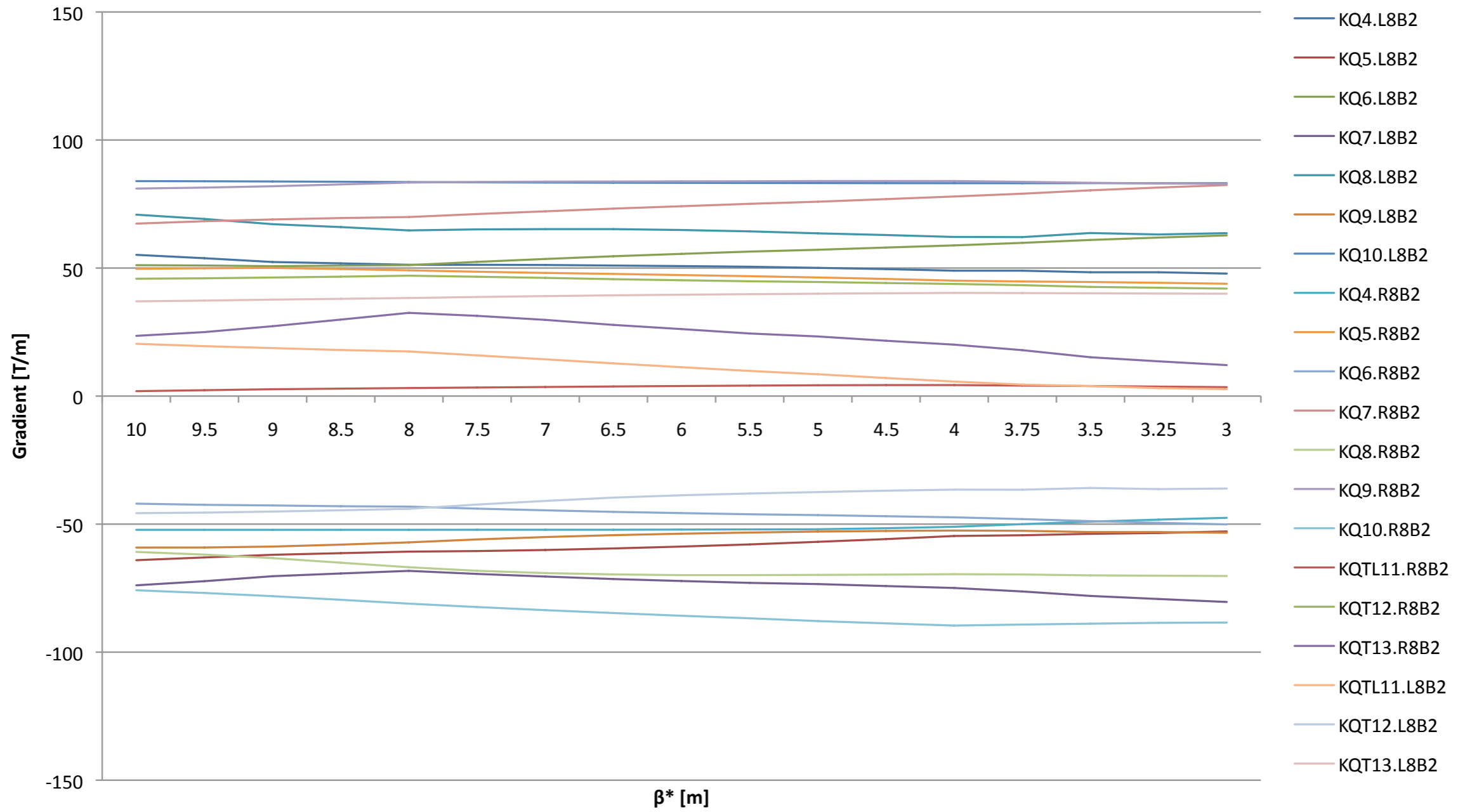
Tune Beam1



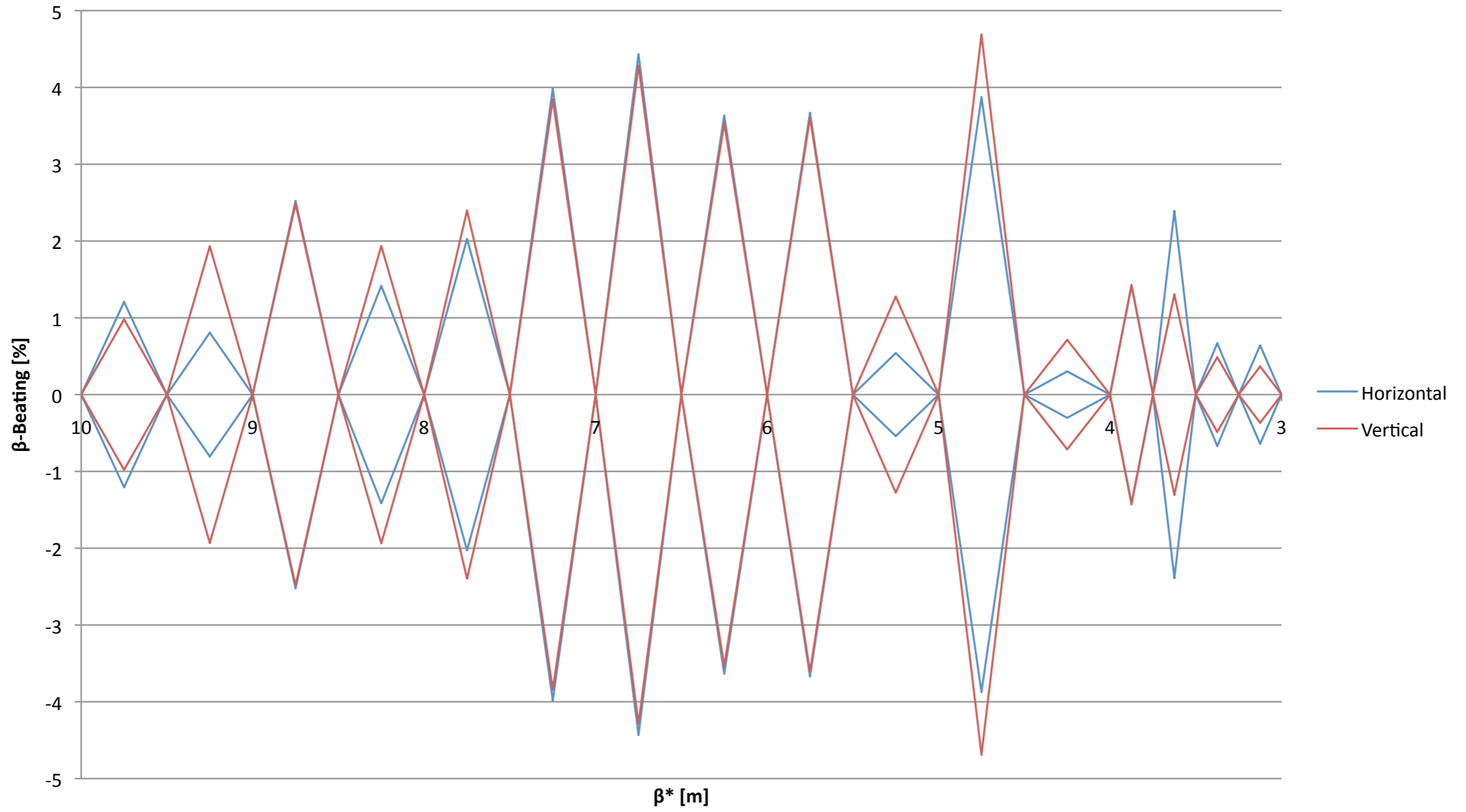
Chromaticity Beam1



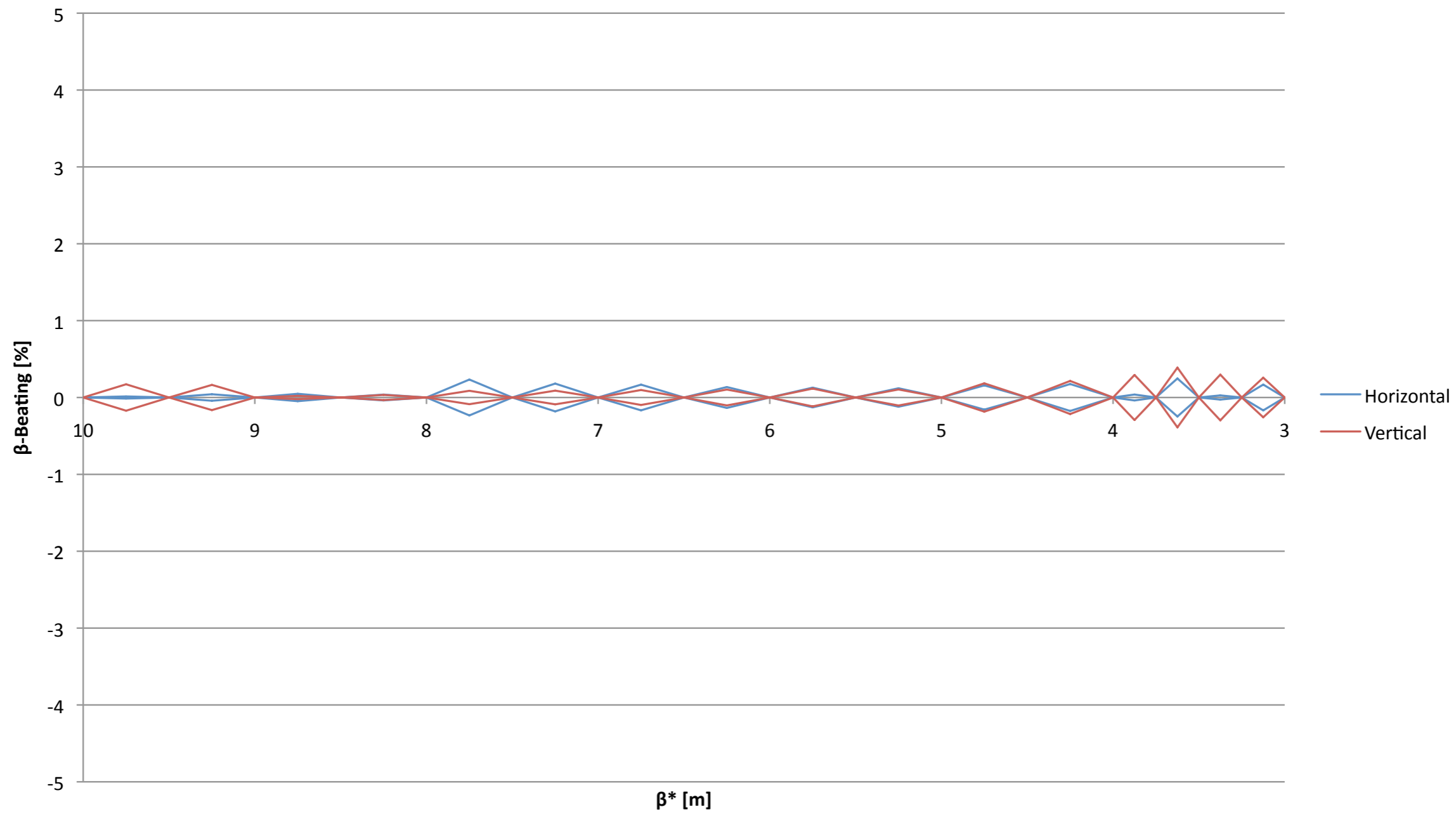
Beam 2 Squeeze 3.5 TeV



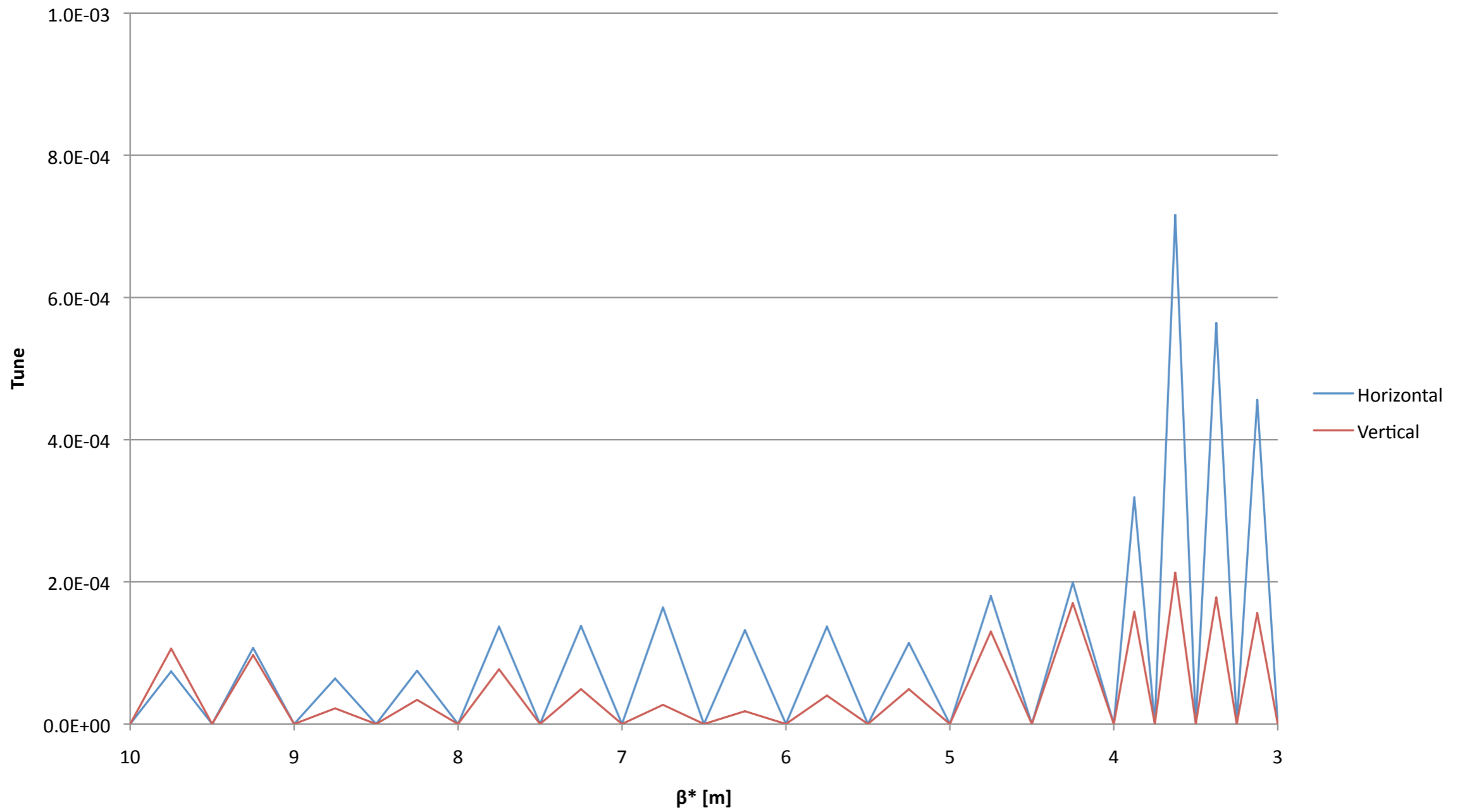
Beta Beating Beam2 in IR8



Beta Beating Beam2 outside IR8



Tune Beam2



Chromaticity Beam2

