BBLR MD
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preliminary results

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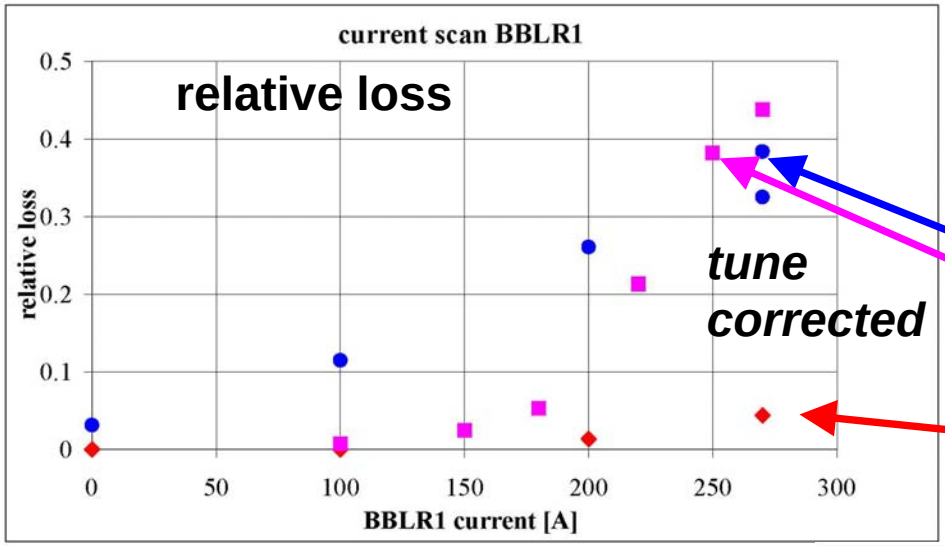
current scans at 26 and 37 GeV/c

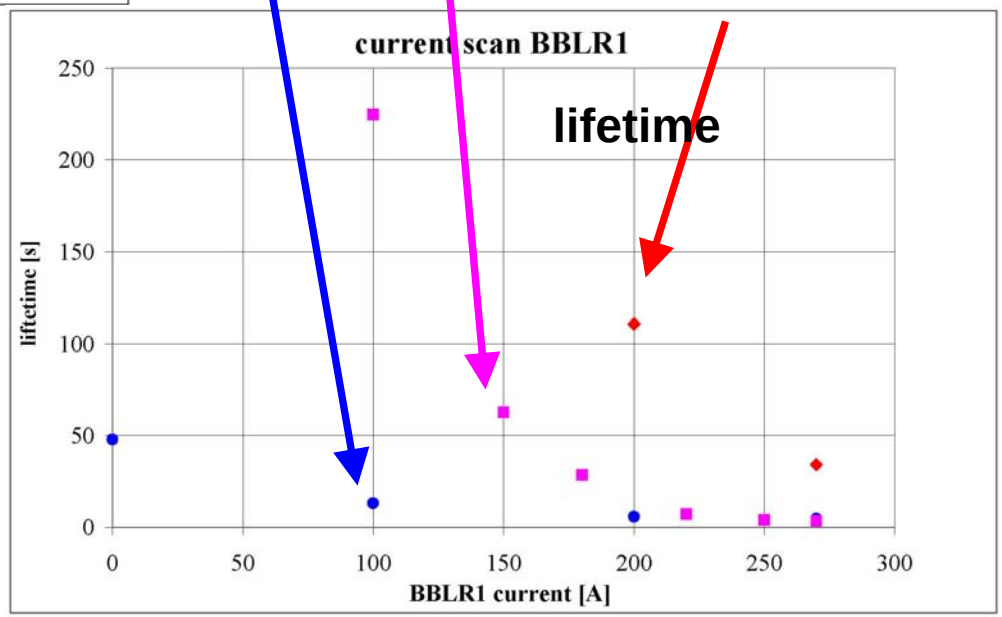


8.4σ, 26 GeV

8.6σ, 37 GeV

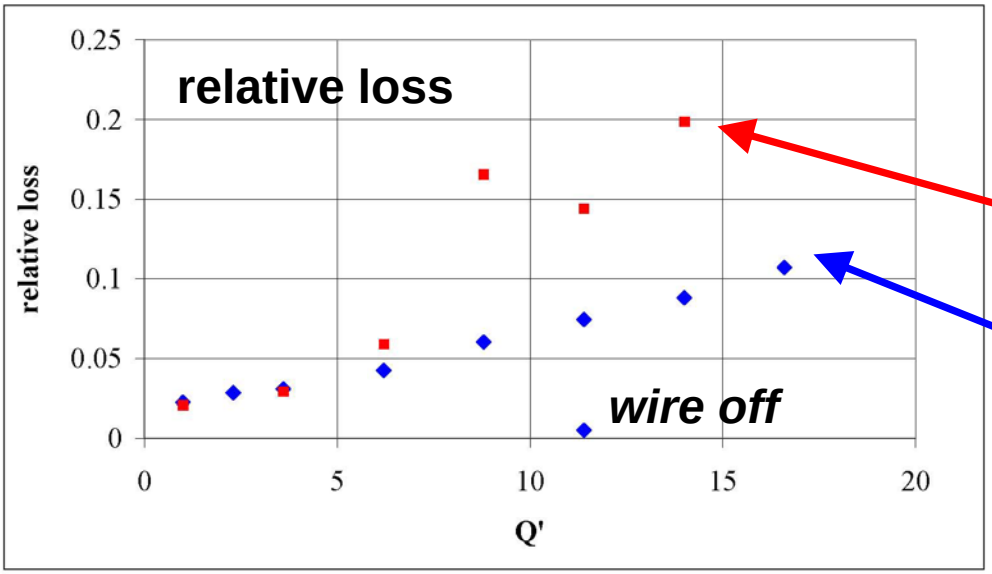
10.0σ, 37 GeV

14 mm distance ~ 8.4 sigma at 26 GeV
10.0 sigma at 37 GeV
12 mm distance ~ 8.6 sigma at 37 GeV



37 GeV/c data hint at a current threshold, while 26 GeV/c data do not

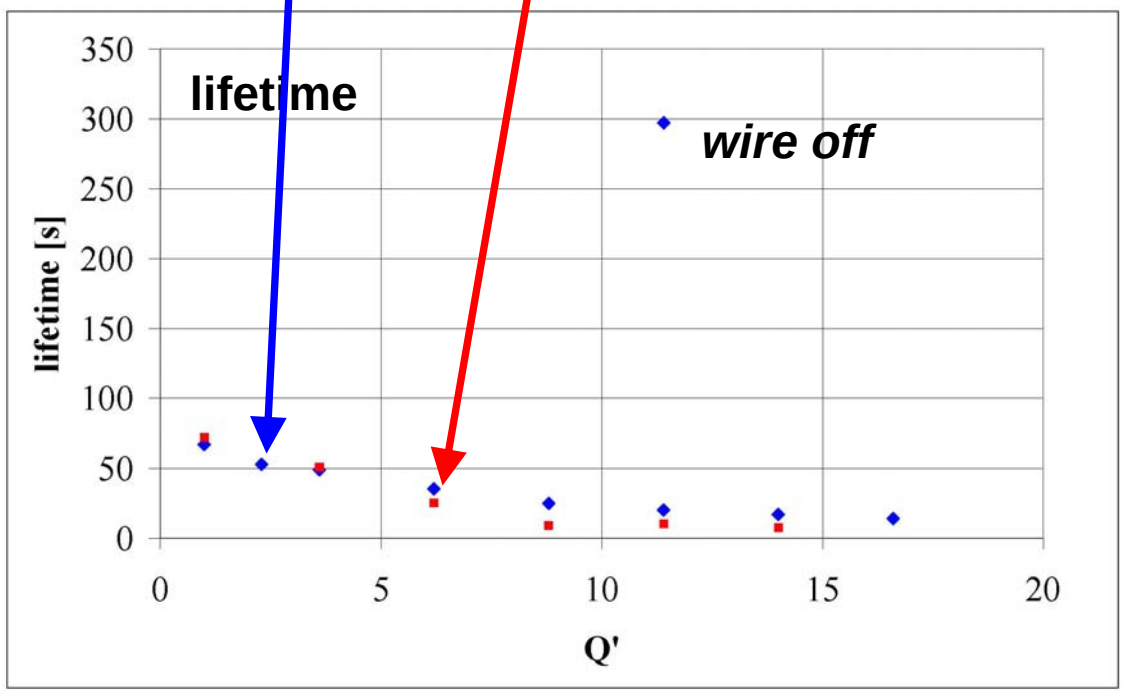
chromaticity scans 37 GeV/c



constant 9 mm distance
between beam and wire center
~ 6.5σ at 37 GeV/c

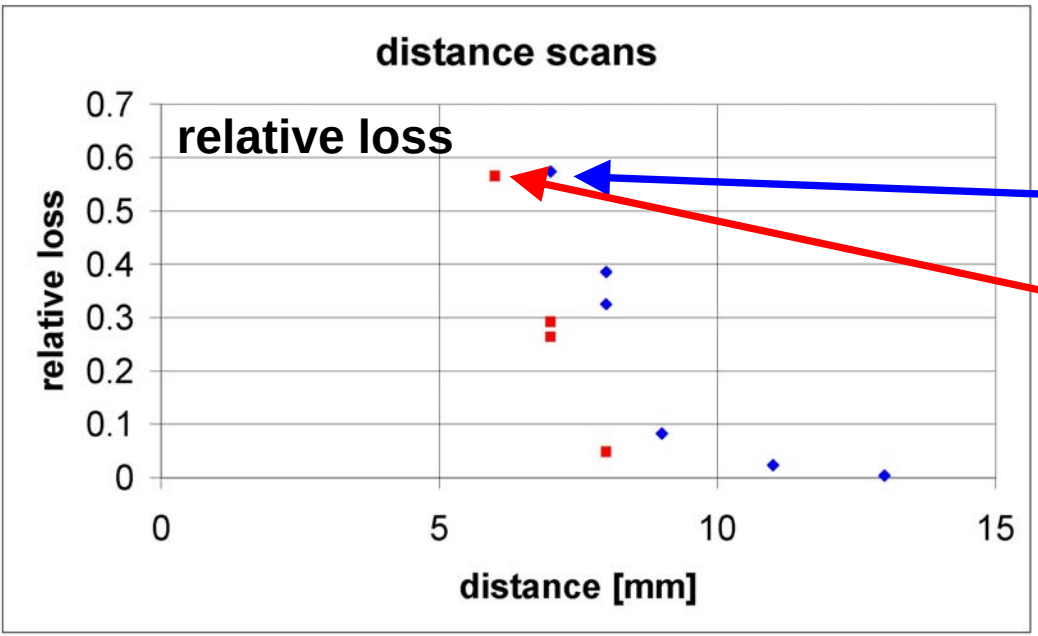
QV'

QH'



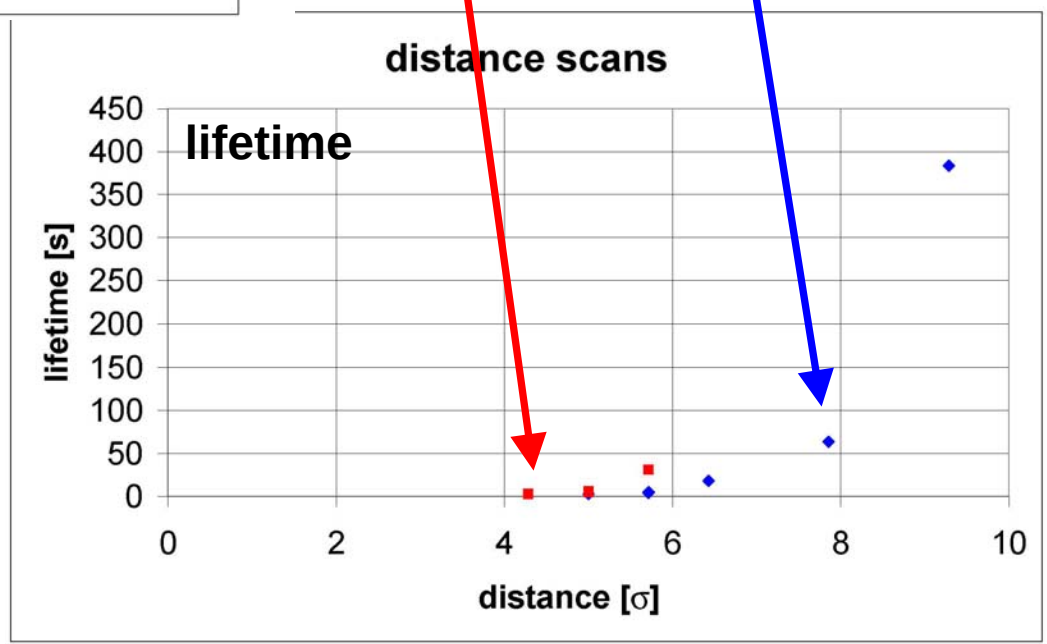
nonzero chromaticity together with wire strongly reduces lifetime

distance scans 37 GeV/c



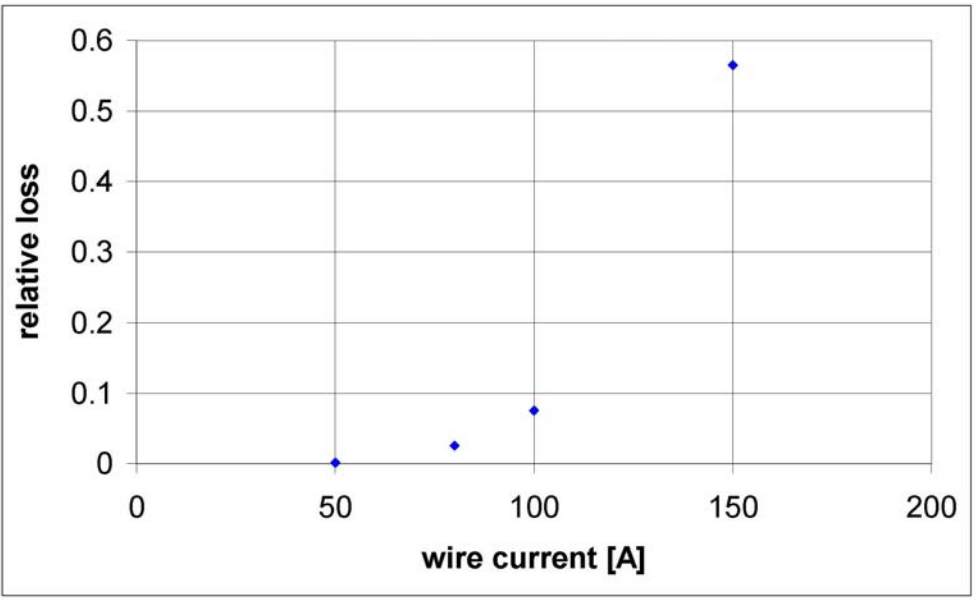
200 A

150 A

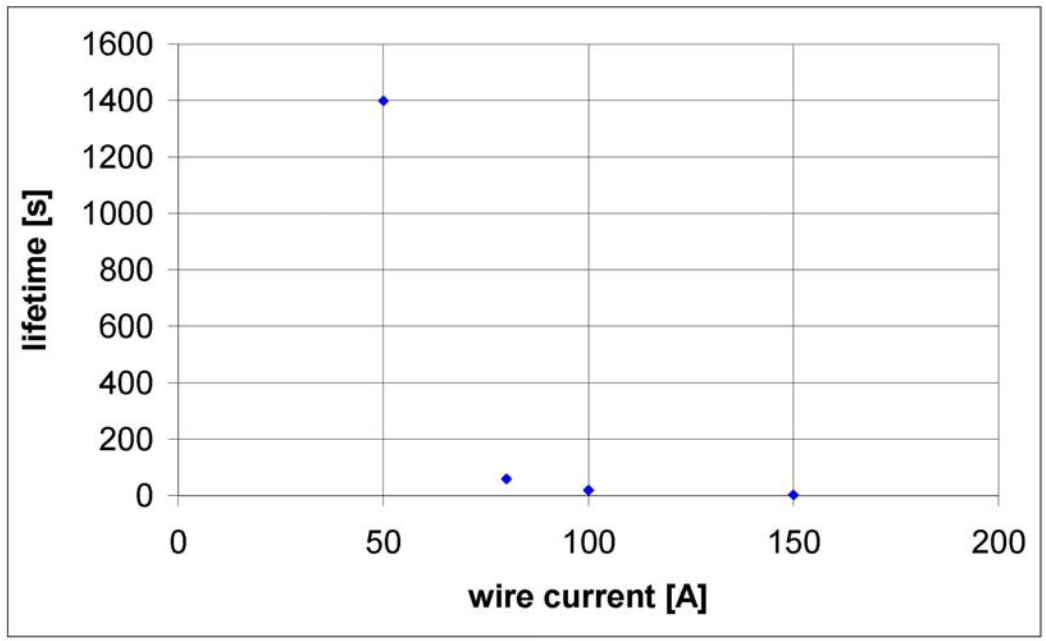


at these wire currents lifetime is very low for separation below 6 or 8 σ

low-distance current scan at 37 GeV/c



constant 6 mm distance
between beam and wire center
~ 4.3σ at 37 GeV/c



for 50 A wire current
the effect of the wire
is no longer visible here

some conclusions

- 2007 BBLR MDs are off to an excellent start
- non zero chromaticity enhances effect of long-range collisions
- scaling behavior violated (26 GeV “special”?)
- few LR encounters at small distance may be acceptable (we should check this with higher lifetime resolution)
- BBLR1 needs to be rotated by 180 degrees prior to week 34 MD, if possible
- we look forward to compensation studies and measurements at 55 GeV