

Proton lifetime vs pbar emittance, intensity and brightness in recent stores

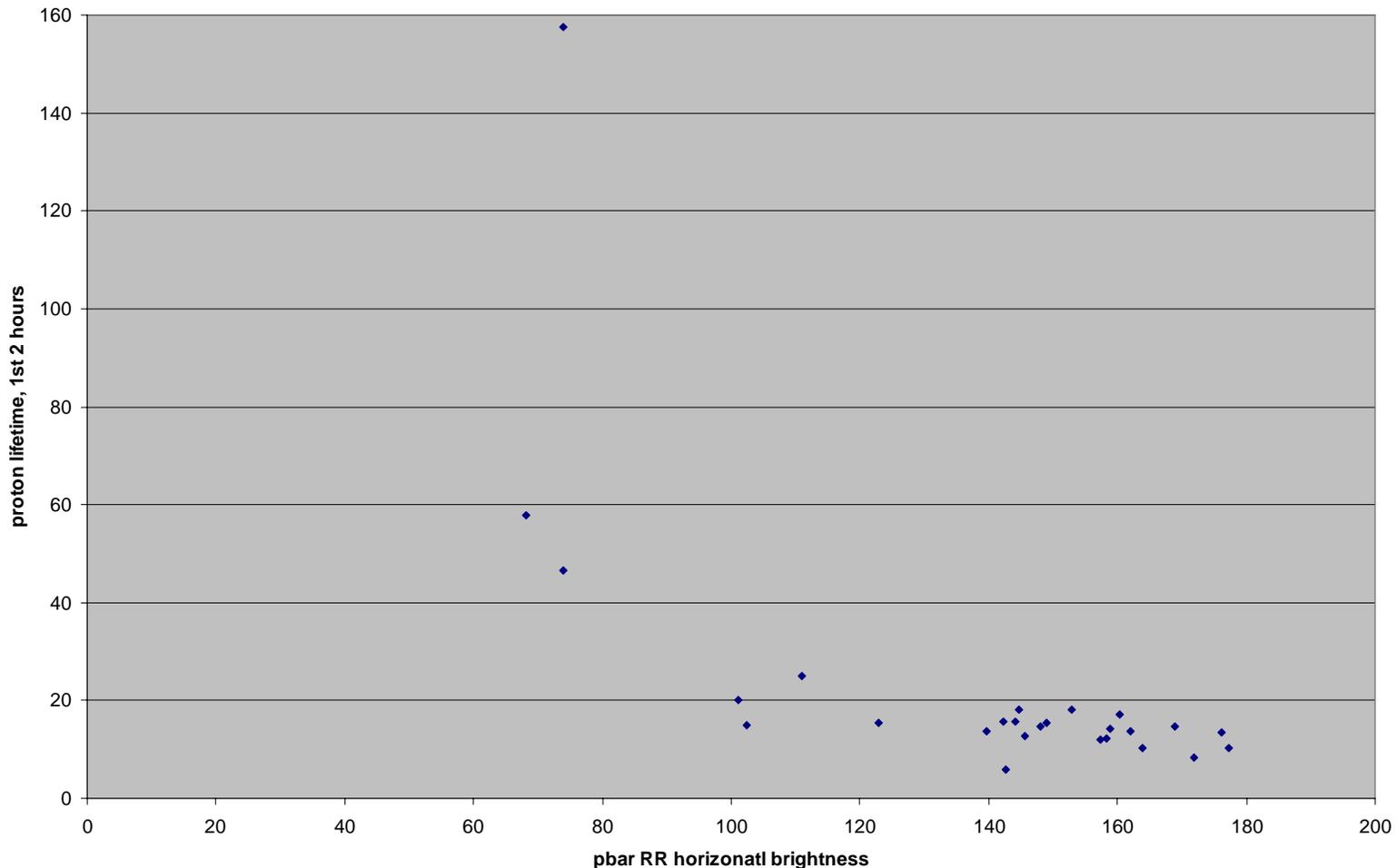
The stores studied use the current (old) helix. The first series of plots have information on the last 26 stores and the second series of plots the last 10 stores.

December 14, 2007

Vaia Papadimitriou

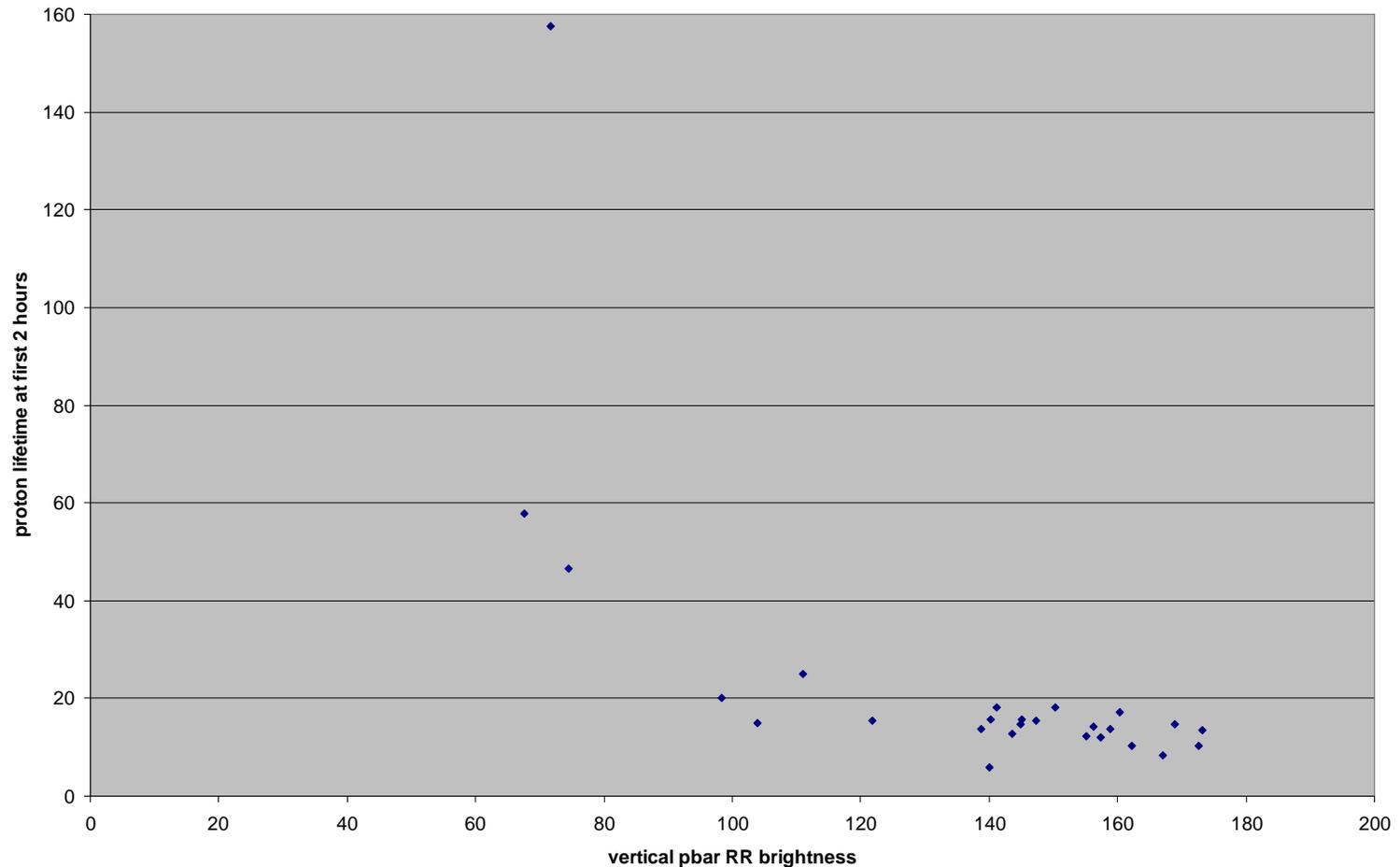
Proton lifetime vs pbar RR horizontal brightness in stores 5714 – 5800, Nov. 11 – Dec 14, 2007

125 p lifetime, 1st 2 hours into store (hours) vs RR horizontal brightness



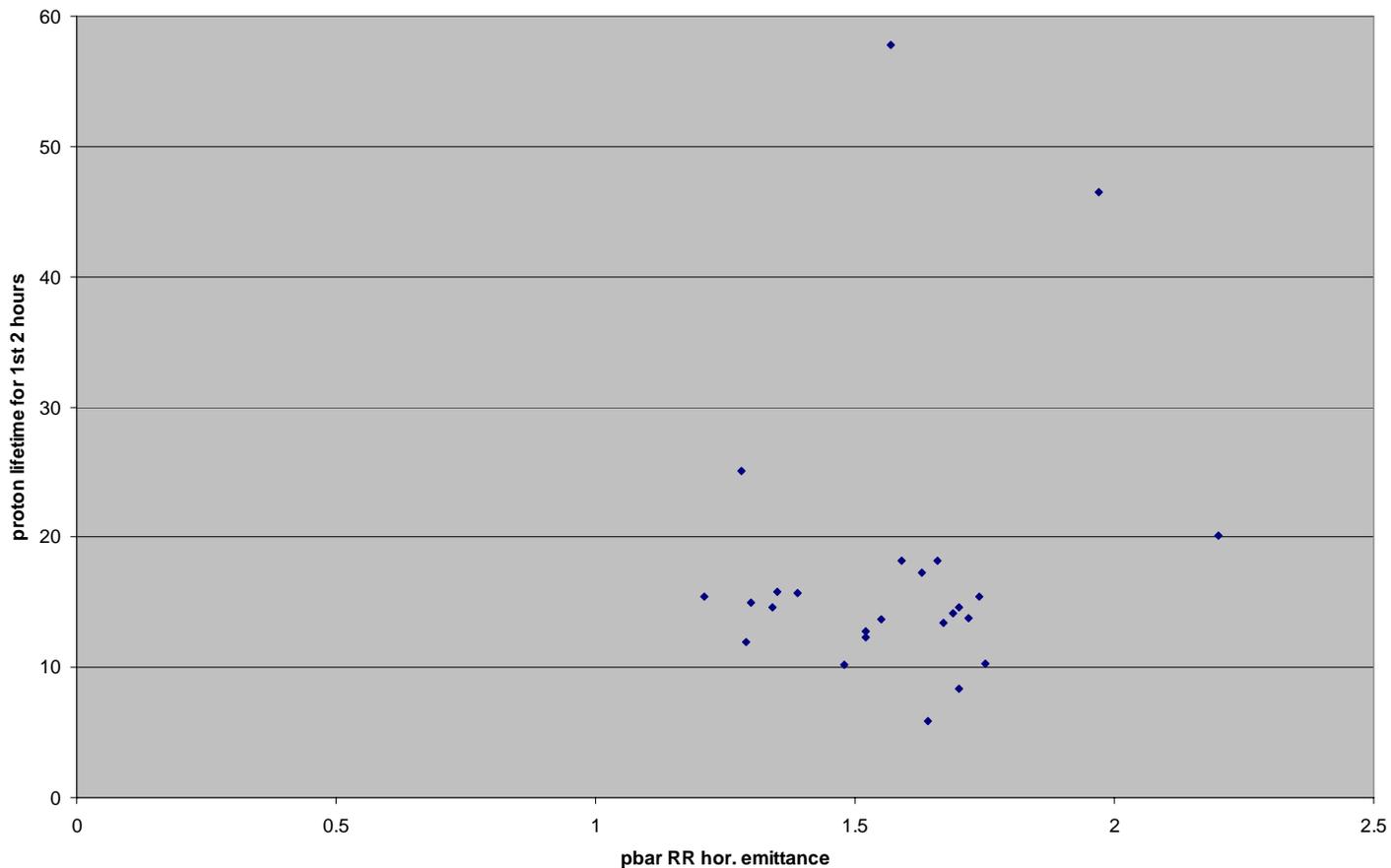
Proton lifetime vs pbar RR vertical brightness in stores 5714 – 5800, Nov. 11 – Dec 14, 2007

125 p lifetime, 1st 2 hours into store (hours) vs vertical pbar RR brightness



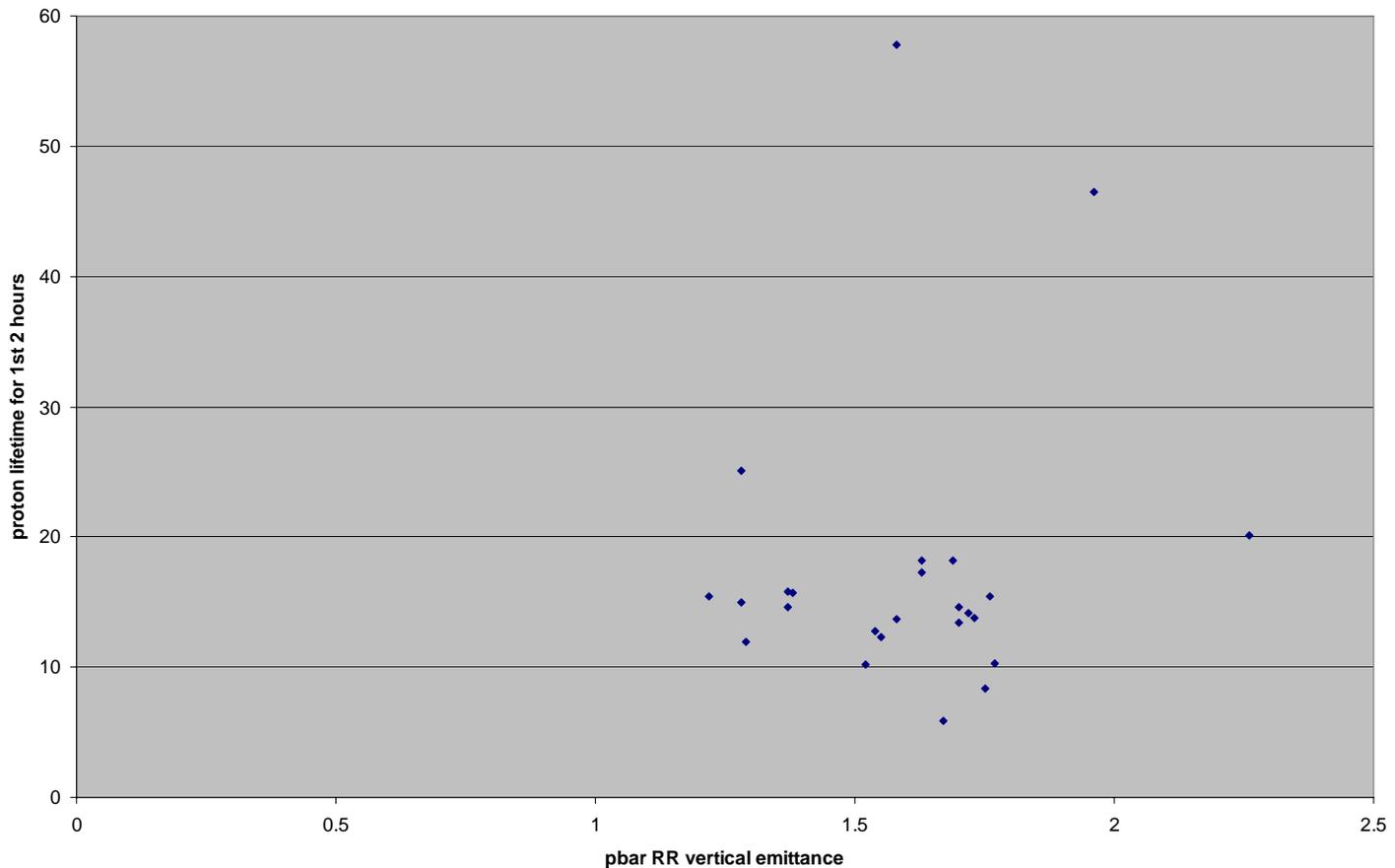
Proton lifetime vs pbar RR horiz. emittance in stores 5714 – 5800, Nov. 11 – Dec 14, 2007

125 p lifetime, 1st 2 hours into store (hours) vs pbar RR hor. emittance



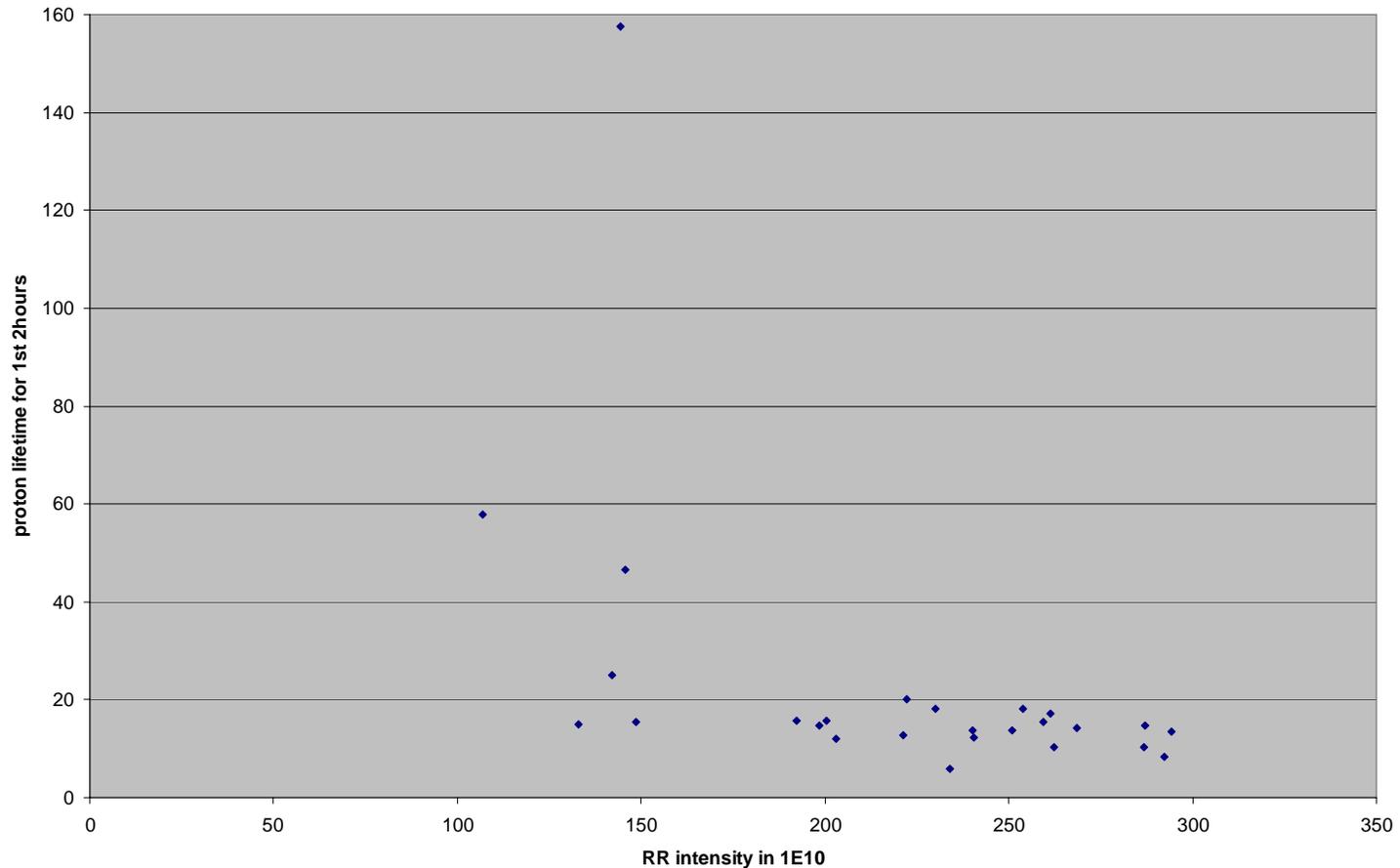
Proton lifetime vs pbar RR vertical emittance in stores 5714 – 5800, Nov. 11 – Dec. 14, 2007

125 p lifetime, 1st 2 hours into store (hours) vs pbar RR vertical emittance



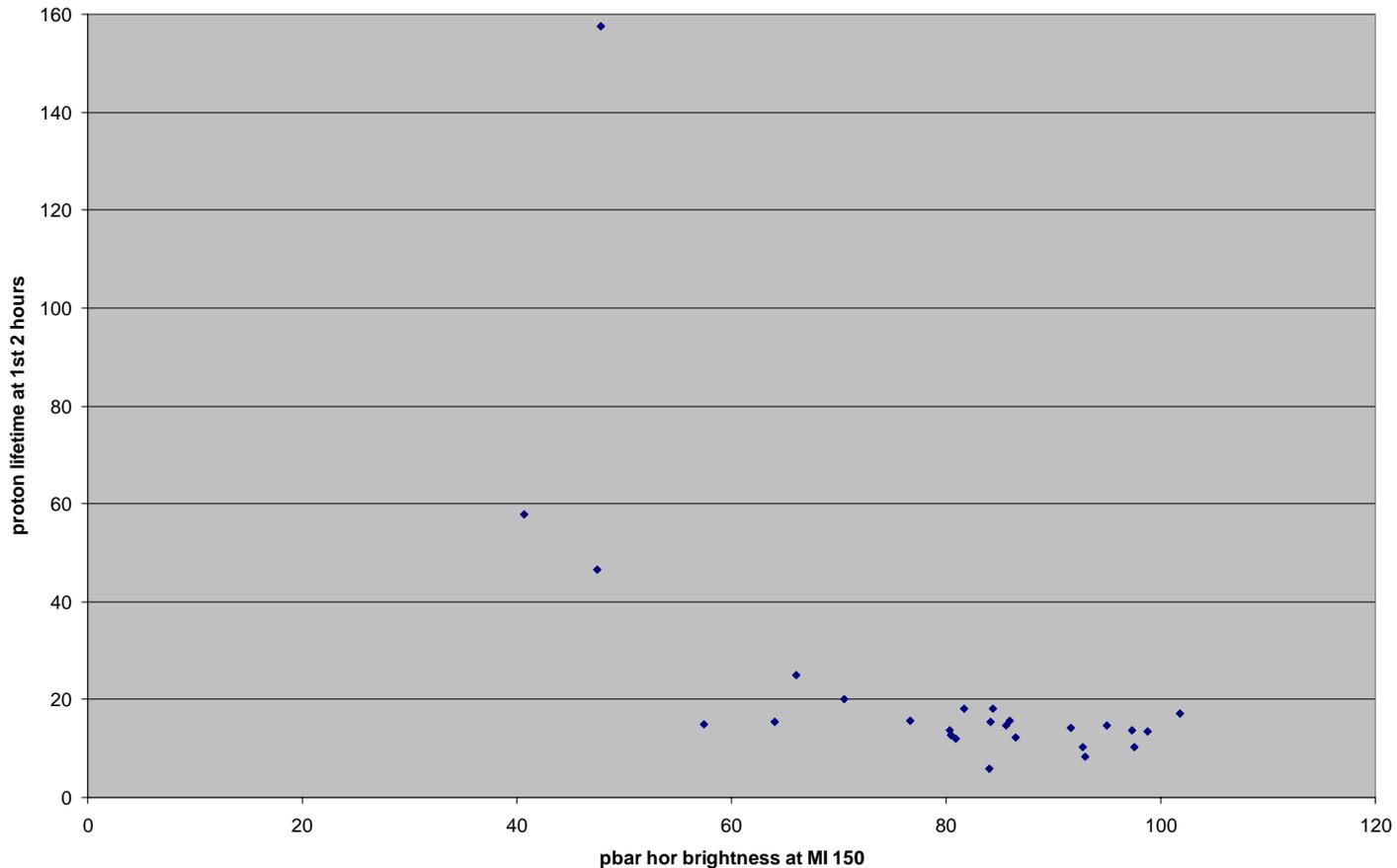
Proton lifetime vs pbar RR intensity in stores 5714 – 5800, Nov. 11 – Dec. 14, 2007

125 p lifetime, 1st 2 hours into store (hours) vs RR intensity



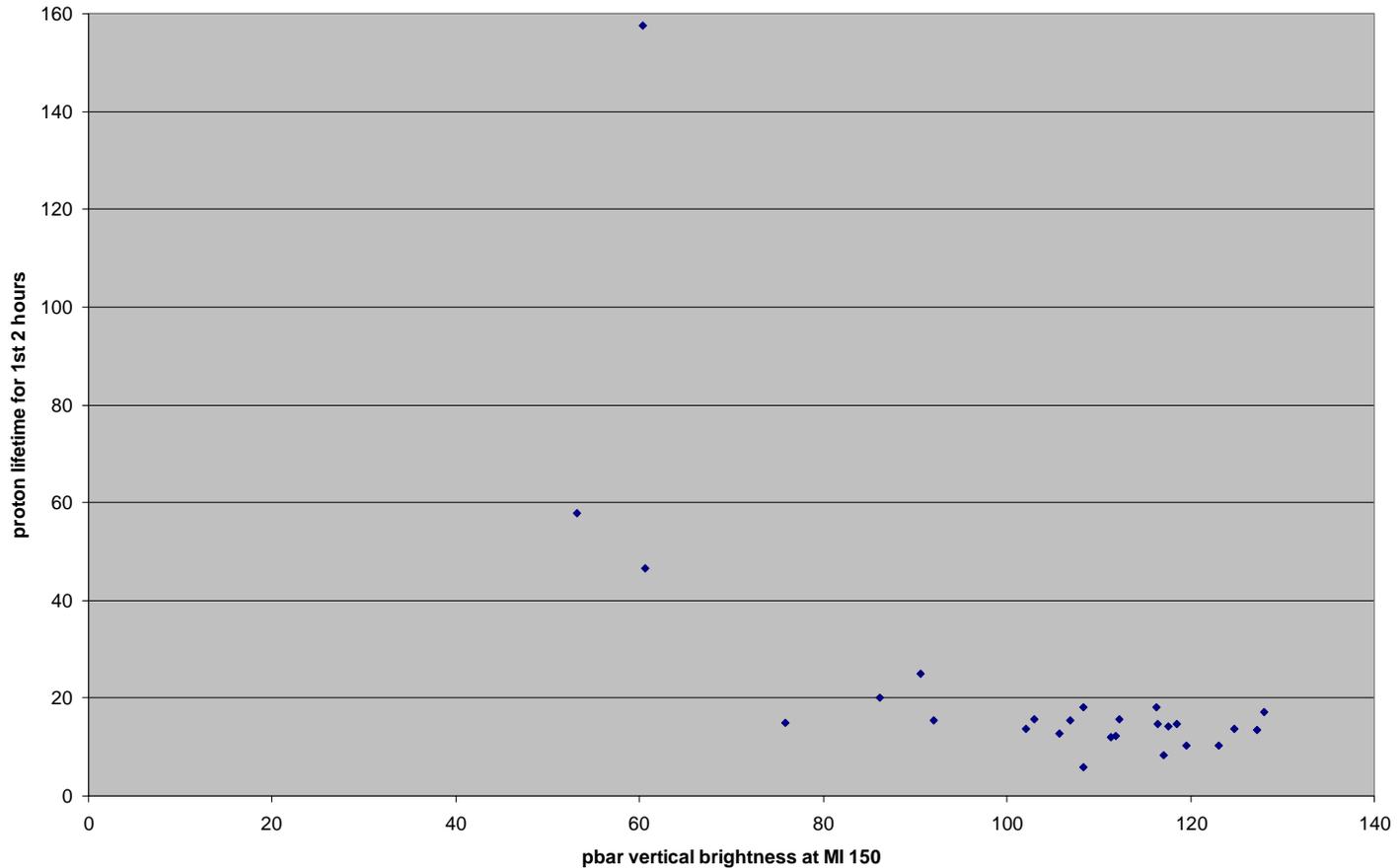
Proton lifetime vs pbar MI 150 horiz. brightness in stores 5714 – 5800, Nov. 11 – Dec 14, 2007

125 p lifetime, 1st 2 hours into store (hours) vs pbar hor brightness at MI 150



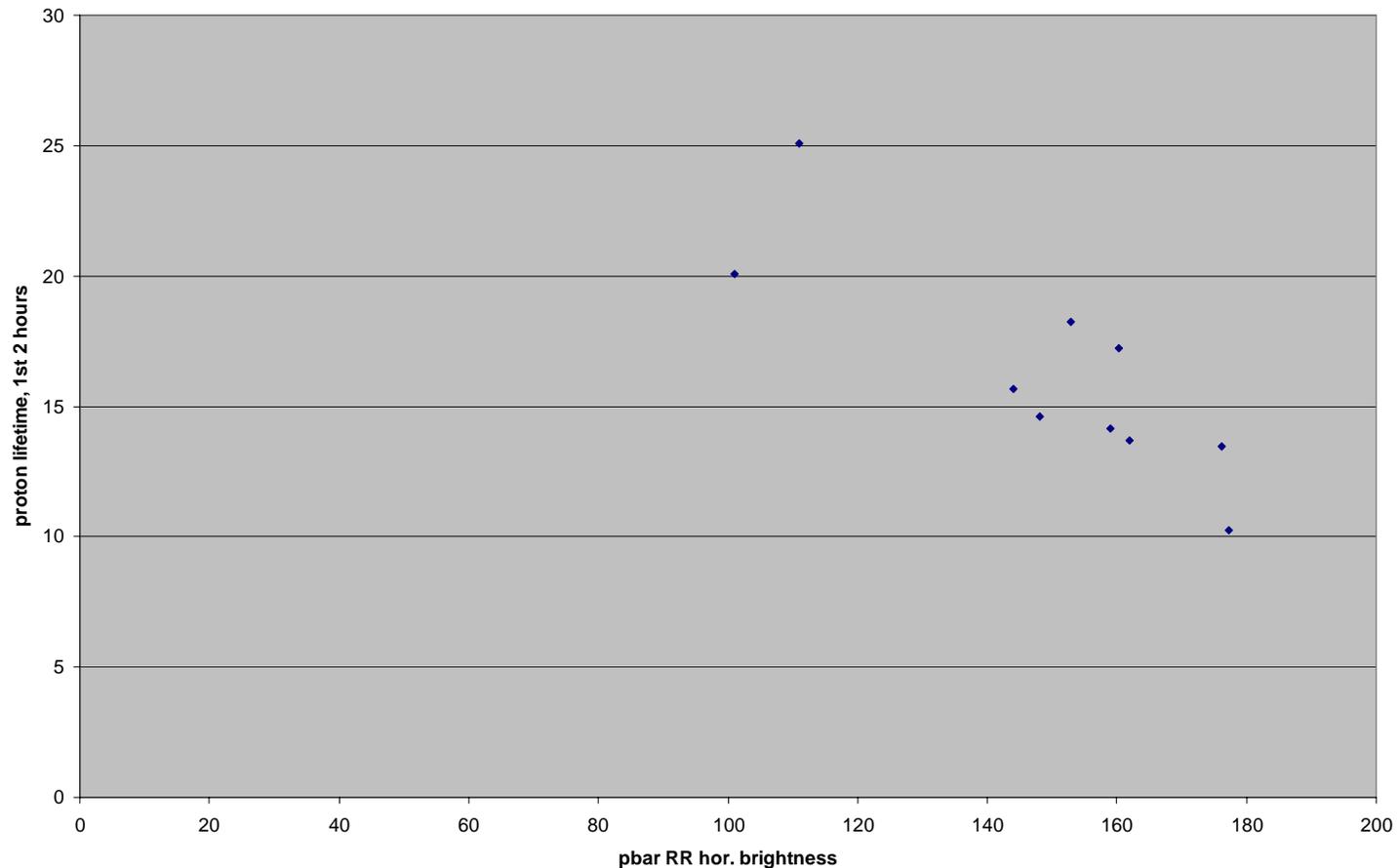
Proton lifetime vs pbar MI 150 vert. brightness in stores 5714 – 5800, Nov. 11 – Dec 14, 2007

125 p lifetime, 1st 2 hours into store (hours) vs pbar vertical brightness at MI 150



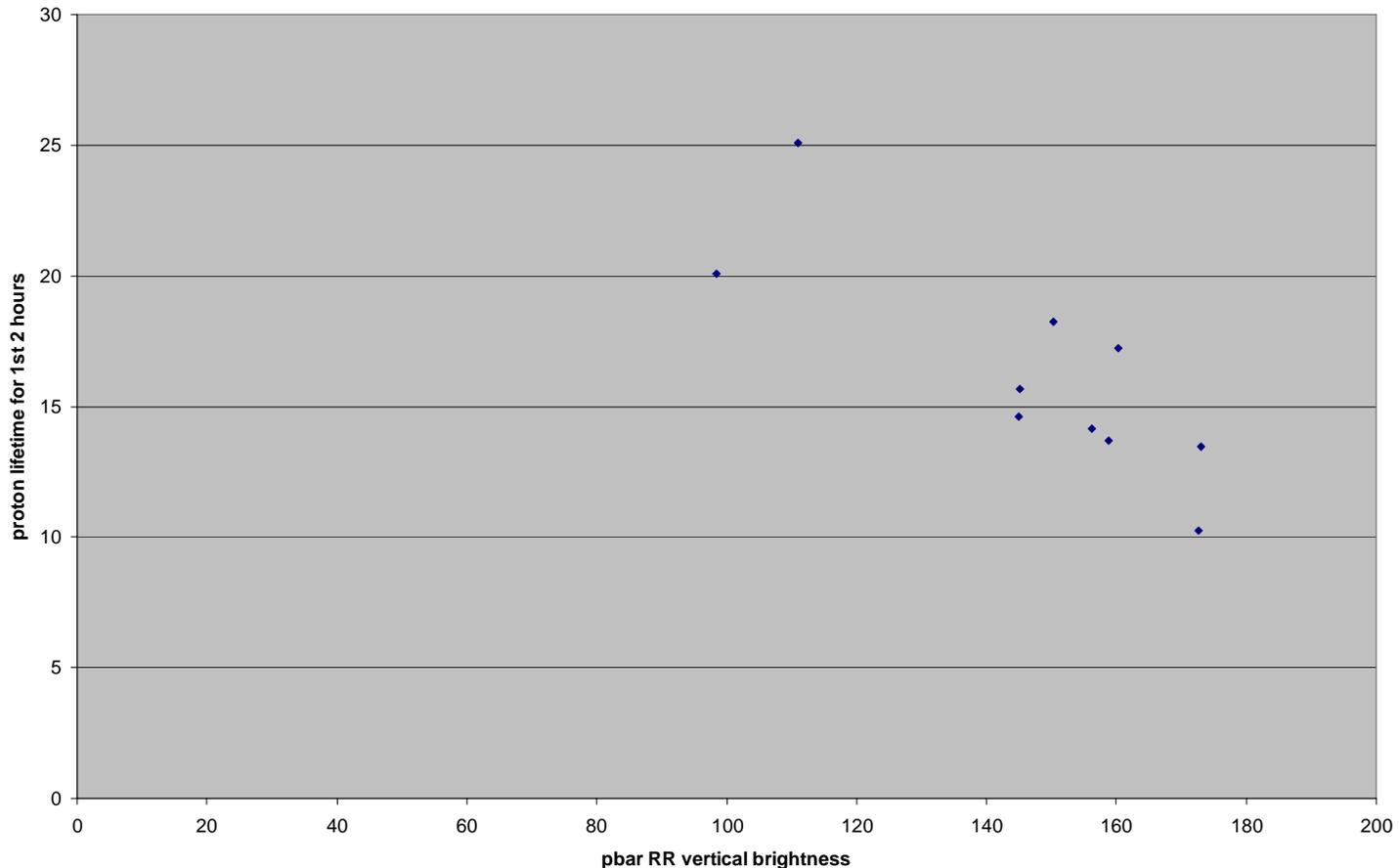
Proton lifetime vs pbar RR horizontal brightness in stores 5761 – 5800, Nov. 30 – Dec 14, 2007

125 p lifetime, 1st 2 hours into store (hours) vs RR hor. brightness



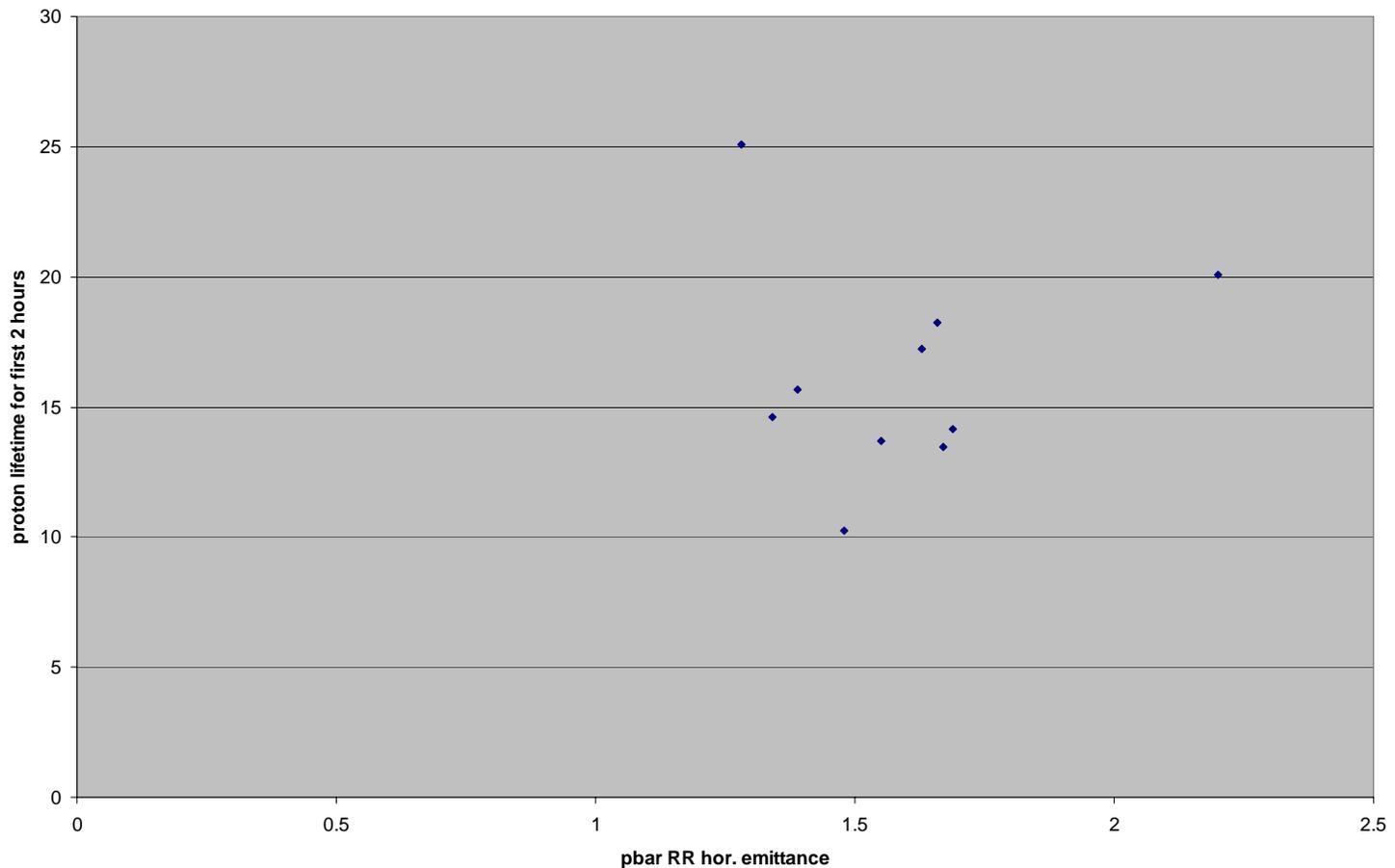
Proton lifetime vs pbar RR vertical brightness in stores 5761 – 5800, Nov. 30 – Dec 14, 2007

125 p lifetime, 1st 2 hours into store (hours) vs pbar RR vertical brightness



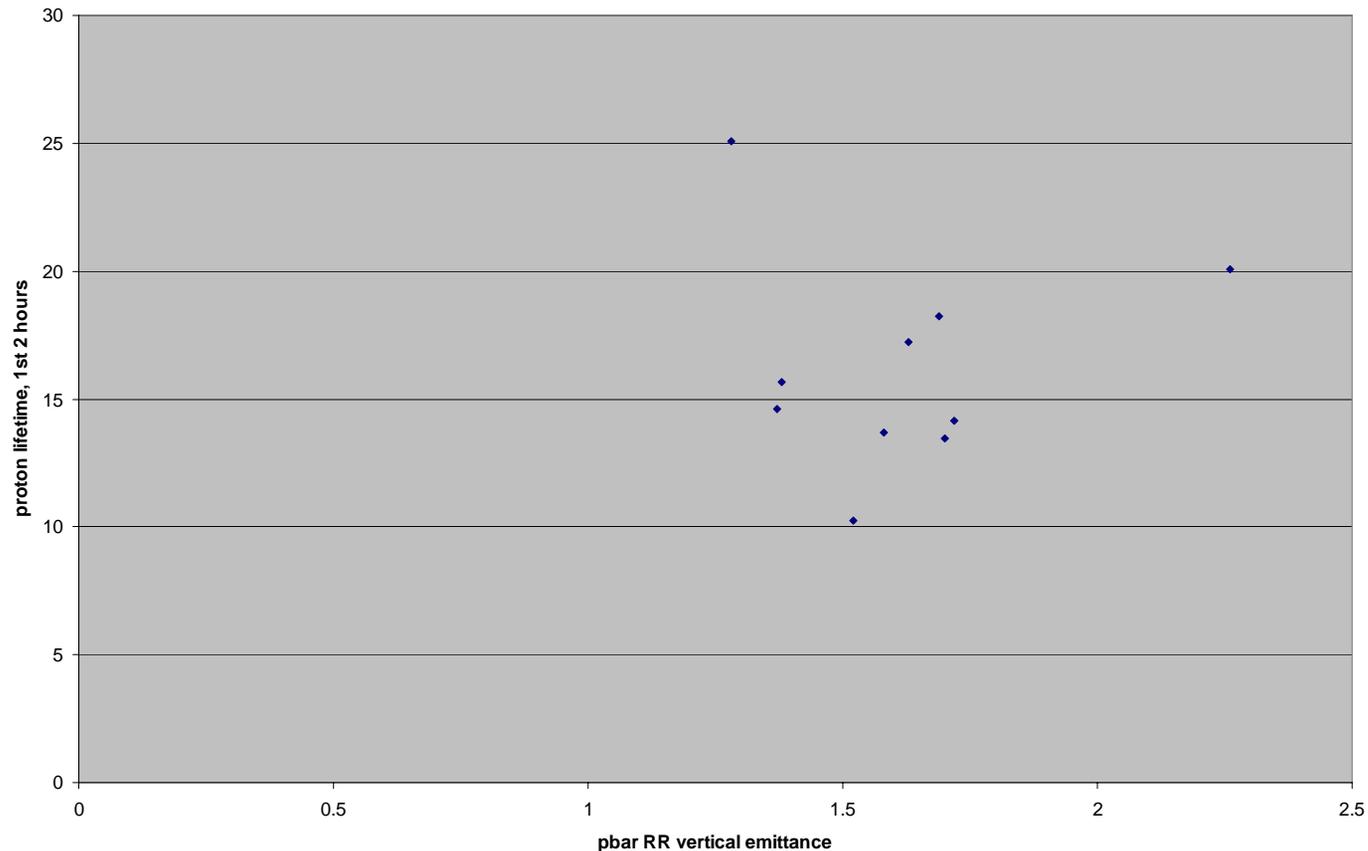
Proton lifetime vs pbar RR horiz. emittance in stores 5761 – 5800, Nov. 30 – Dec 14, 2007

125 p lifetime, 1st 2 hours into store (hours) vs pbar RR hor. emittance



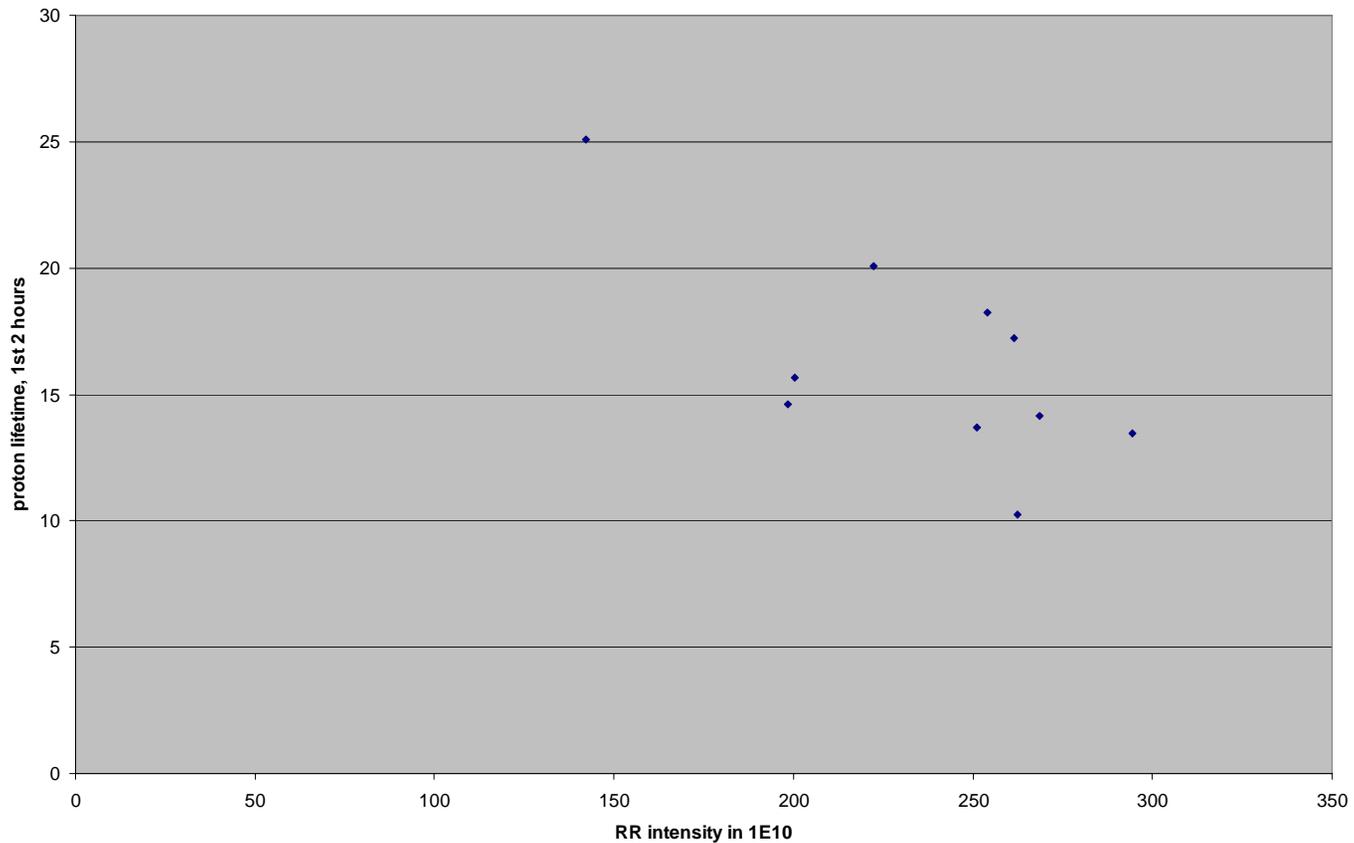
Proton lifetime vs pbar RR vert. emittance in stores 5761 – 5800, Nov. 30 – Dec 14, 2007

125 p lifetime, 1st 2 hours into store (hours) vs pbar RR vertical emittance



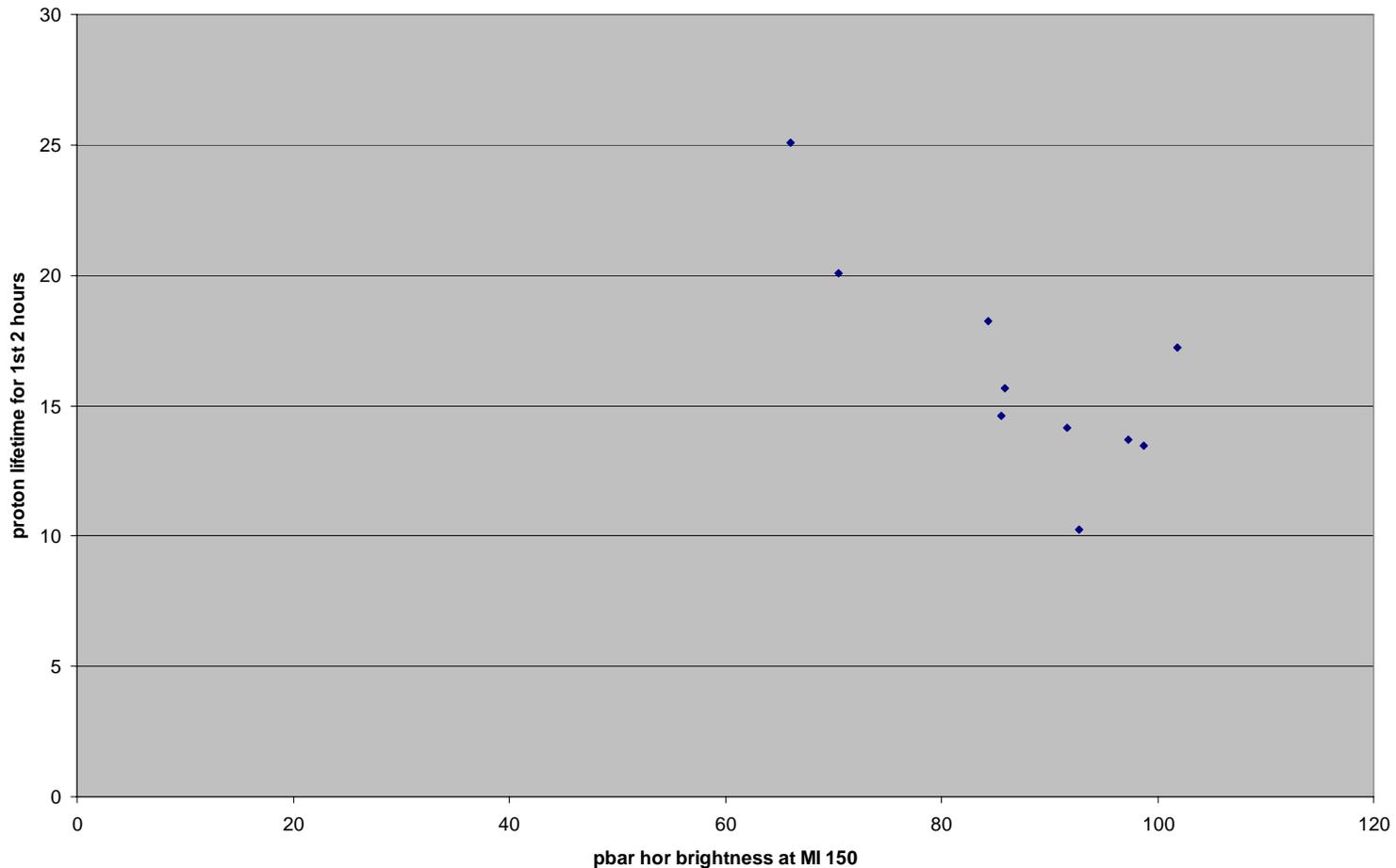
Proton lifetime vs pbar RR intensity in stores 5761 – 5800, Nov. 30 – Dec 14, 2007

125 p lifetime, 1st 2 hours into store (hours) vs RR intensity



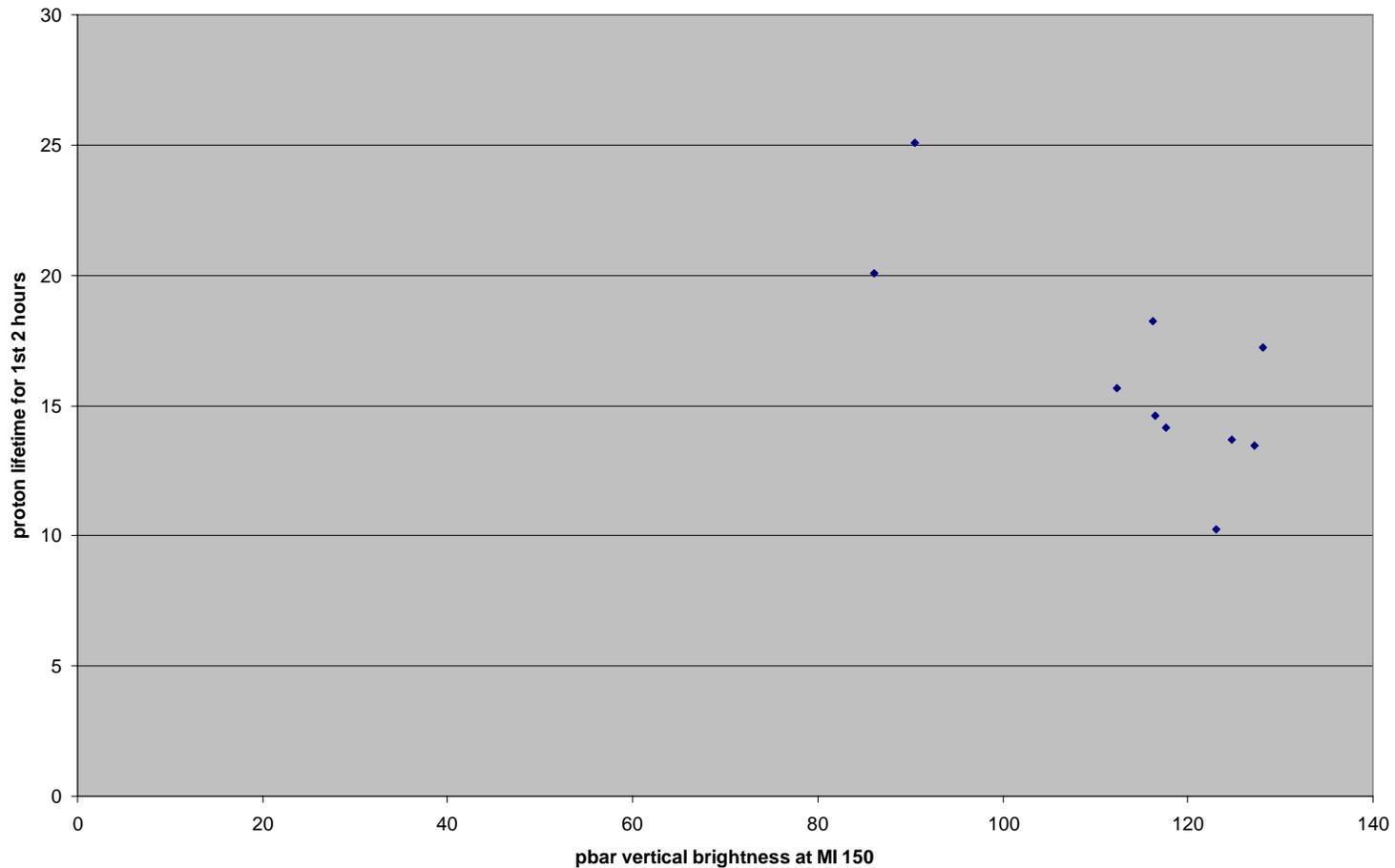
Proton lifetime vs pbar MI 150 horiz. brightness in stores 5761 – 5800, Nov. 30 – Dec 14, 2007

125 p lifetime, 1st 2 hours into store (hours) vs pbar hor. brightness at MI 150



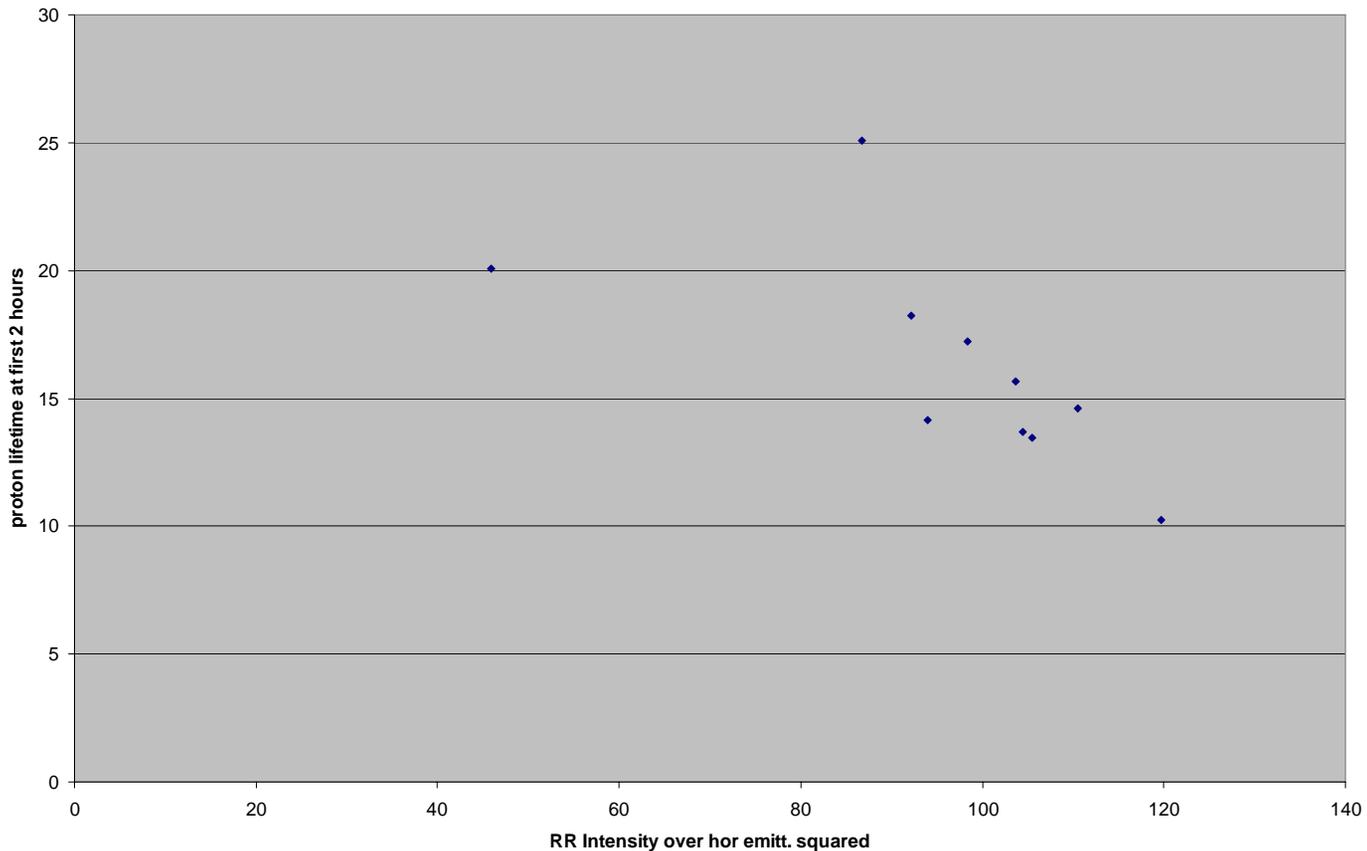
Proton lifetime vs pbar MI 150 vertical brightness in stores 5761 – 5800, Nov. 30 – Dec 14, 2007

125 p lifetime, 1st 2 hours into store (hours) vs pbar vertical brightness at MI 150



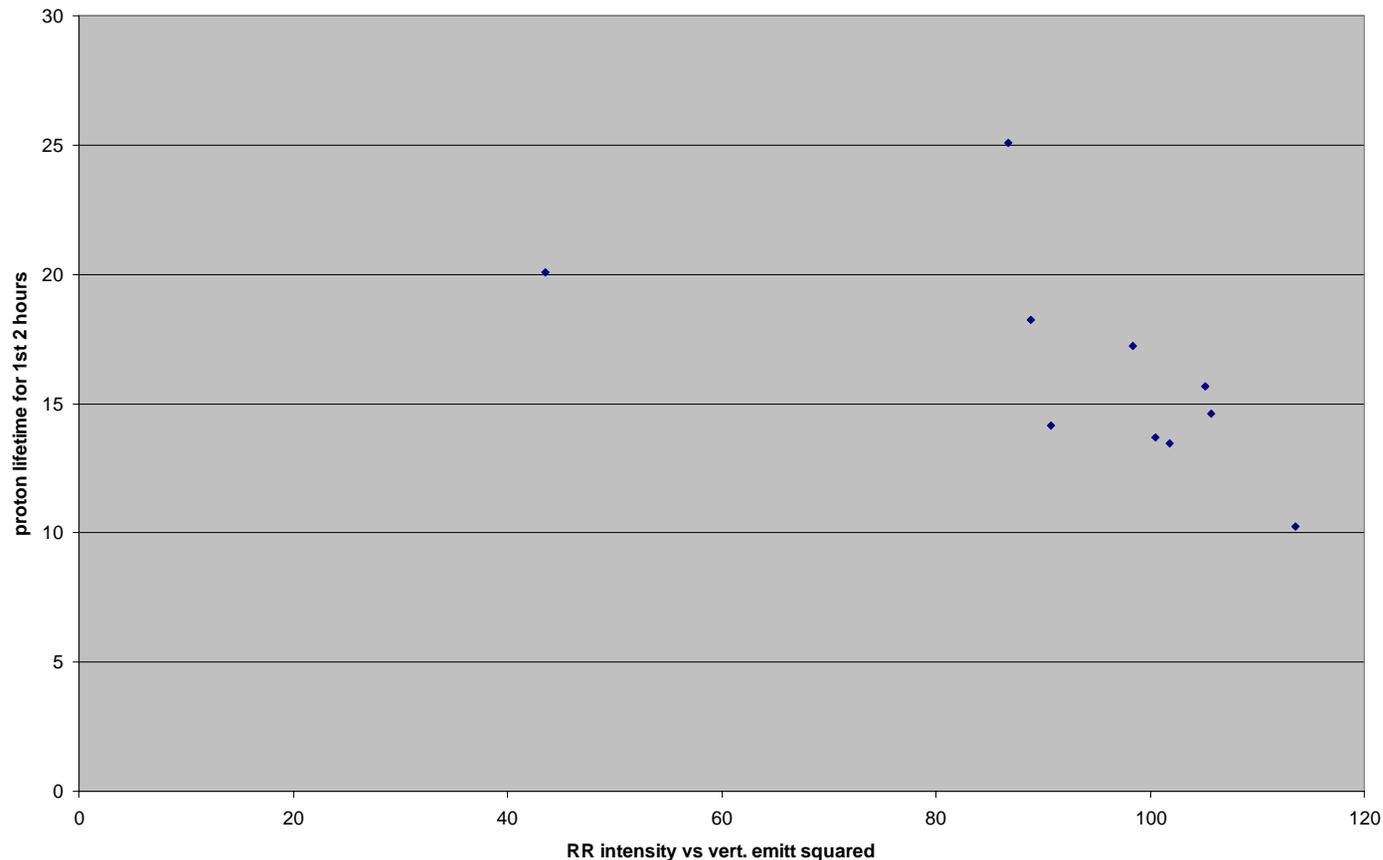
Proton lifetime vs pbar RR intensity over horiz. emittance squared in stores 5761 – 5800, Nov. 30 – Dec 14, 2007

125 p lifetime, 1st 2 hours into store (hours) vs RR int over hor emitt squared



Proton lifetime vs pbar RR intensity over vert. emittance squared in stores 5761 – 5800, Nov. 30 – Dec 14, 2007

125 p lifetime, 1st 2 hours into store (hours) vs RR intensity over vert emitt squared



There is a definite (anti)correlation between proton lifetime and \bar{p} brightness, \bar{p} intensity, and \bar{p} intensity over the square of the \bar{p} emittance