

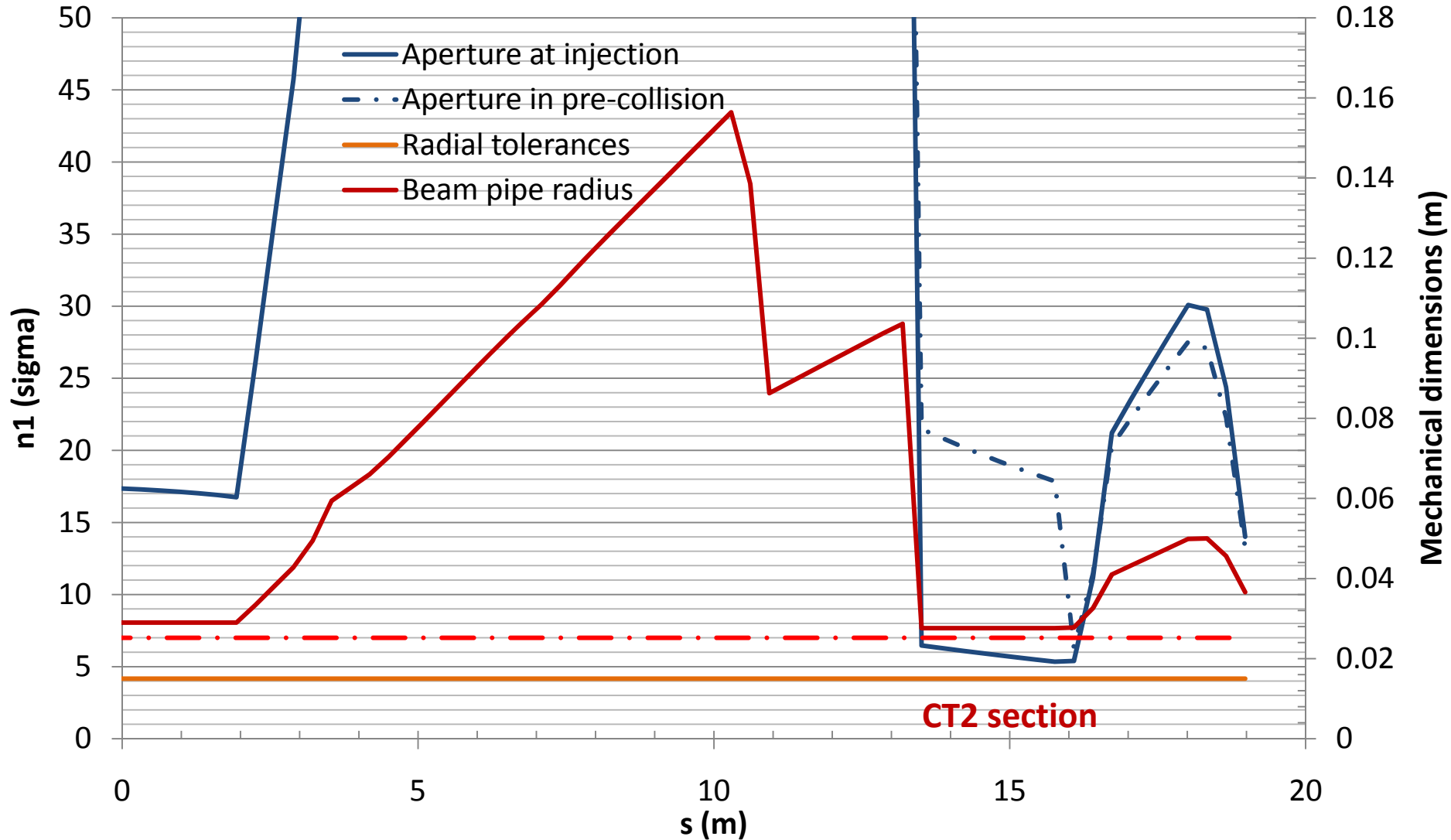
Comments on CMS beam pipe aperture (and issues)

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Background information

- At last LHC Experimental Beam pipe WG some concern was expressed about the mechanical aperture for CMS.
- As a follow up, the situation for the nominal machine (injection and collision) and the special high-beta solutions (see presentation by HB) has been evaluated.
- Status:
 - CMS beam pipe model not available from layout database.
 - Most recent beam pipe model taken from LHC Project Note 418 (impedance computation).
 - Tolerance for aperture computation: 15 mm (radial) made of
 - 2.5 mm mechanical
 - 2.5 mm alignment
 - Such a tolerance is too large for the CT2 section of the CMS beam pipe.

Aperture overview for CMS



Inverse computation of acceptable tolerance

