

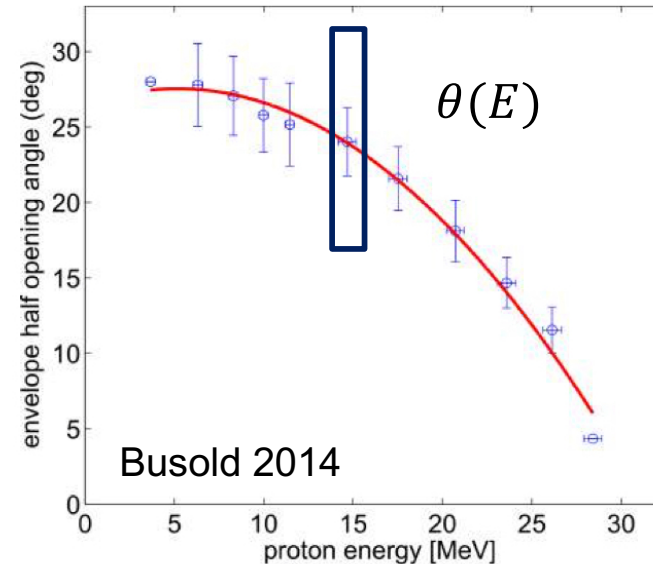
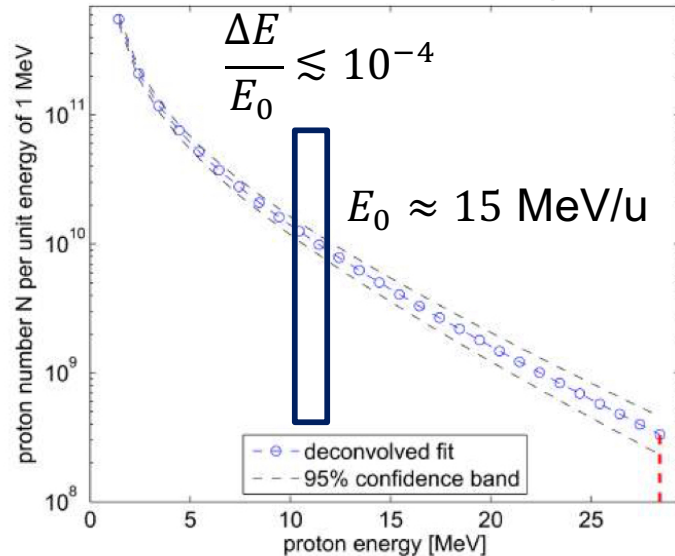
HZDR

HELMHOLTZ ZENTRUM DRESDEN ROSSENDORF

GSI

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TNSA (proton) beam distribution



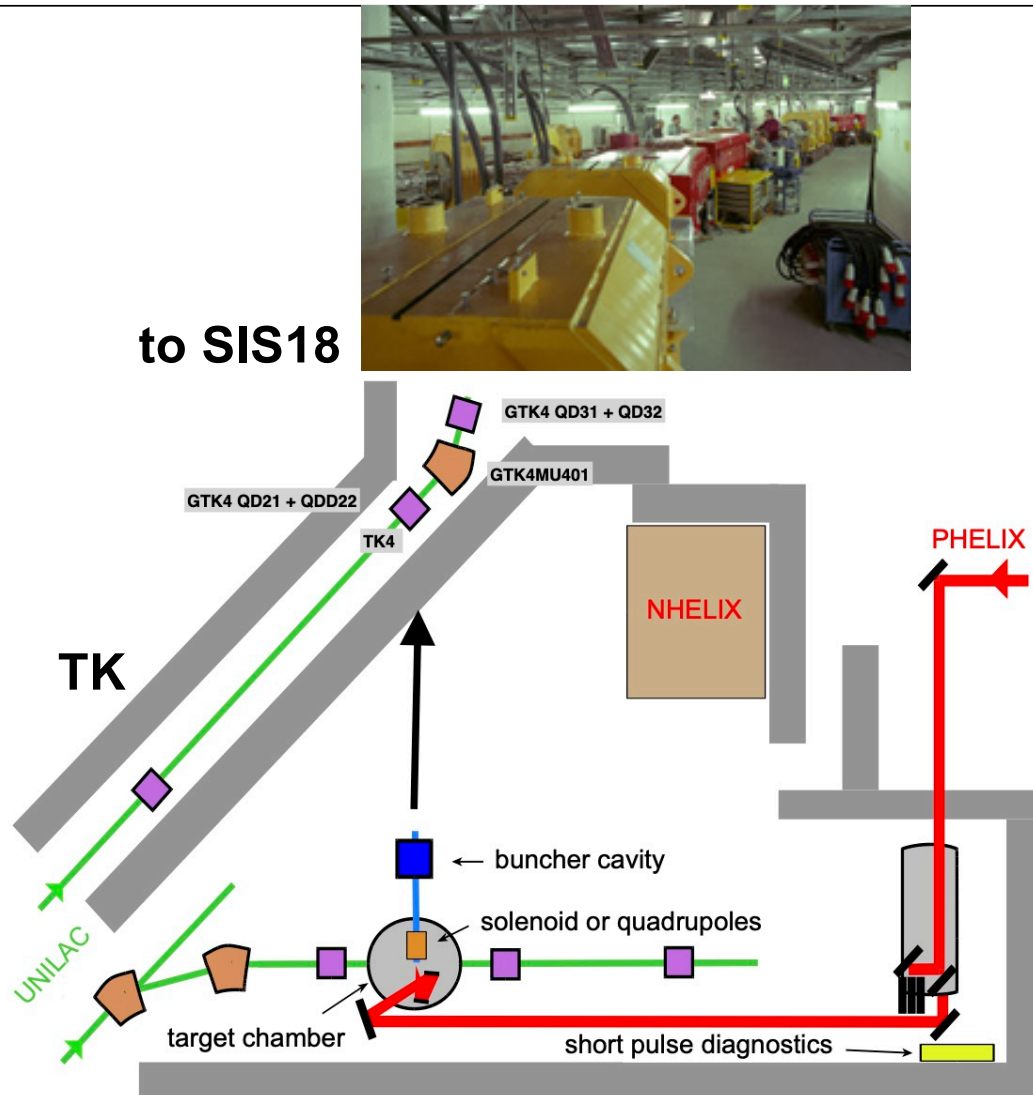
Only a small fraction of the protons can be transported.

Focusing: Large gradients and short distance.

Chromatic effects !

Initial focusing concepts: (permanent) quadrupole doublet/triplet, plasma lens

LIGHT@GSI: Towards synchrotron injection



- TNSA models for the beam distribution and transport
- Targets for high repetition (1 Hz)
- Plasma lens for LIGHT
- Matching/transport to TK
- Protons and heavy-ions

Goal: First laser accelerated ions circulating in a synchrotron. Current and profile measurements !

Further collaborators welcome !