Dimensions at PSI

1,000,000,000 m

1,000,000 m

1,000 m

100 m

10 m

1 m

0.1 m

0.01 m

0.001 m

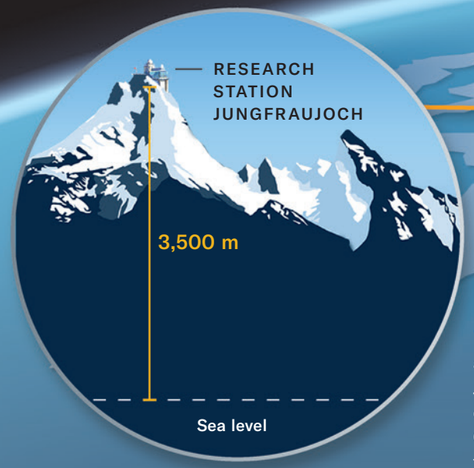
0.000 001 m

0.000 000 001 m

0.000 000 000 001 m

0.000 000 000 000 001 m

0.000 000 000 000 000 001 m



3,500 m

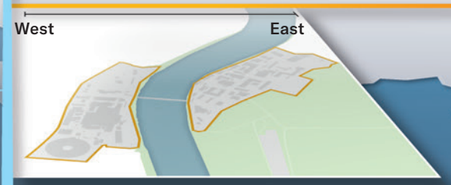
above sea level sits the Research Station Jungfraujoch, where PSI researchers also conduct atmospheric research.
One measurement series has been running for 33 years.

105,665,000 m

105,665 km is the maximum distance from Earth on the orbit of the space telescope XMM-Newton. It was co-developed by PSI and has been in orbit since 1999.

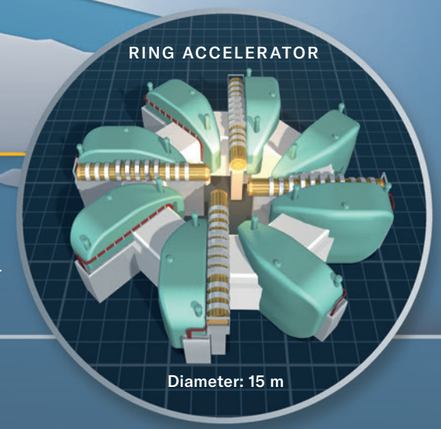
725 m

is the east-west extent of the PSI campus.



2,200,000 m

2,200 km is the farthest (one-way) that PSI researchers have driven the Smogmobil: In Estonia they used it to study aerosols.

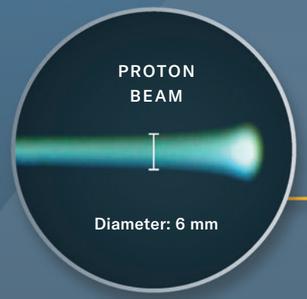


15 m

is the diameter of the HIPA cyclotron in the proton accelerator facility.

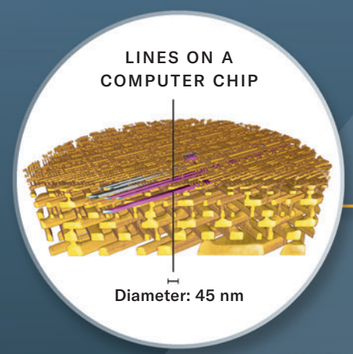
0.44 m

44 cm is the width of this double-page spread.



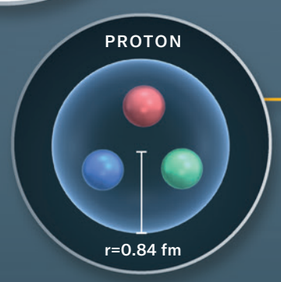
0.006 m

The diameter of the focused proton beam used to treat tumours point by point in the Centre for Proton Therapy is around 6 mm.



0.000 000 045 m

45 nanometres is the diameter of the electrical lines on a computer chip, which were made visible in a 3D visualisation at SLS.



0.000 000 000 000 000 841 84 m

0.84184 femtometres is the charge radius – thus half the diameter – of the proton. The most precise measurements to date worldwide, made at PSI, yielded this value.

0.0001 m

0.1 mm is a typical edge length of the membrane protein crystals whose protein structures are investigated at SLS.

0.000 000 000 1 m

100 picometre is the wavelength of the most energetic X-ray light SwissFEL can deliver for experiments. The shorter the wavelength, the smaller the structures it can reveal.