

Simulation of JAEA gun beam line (1)

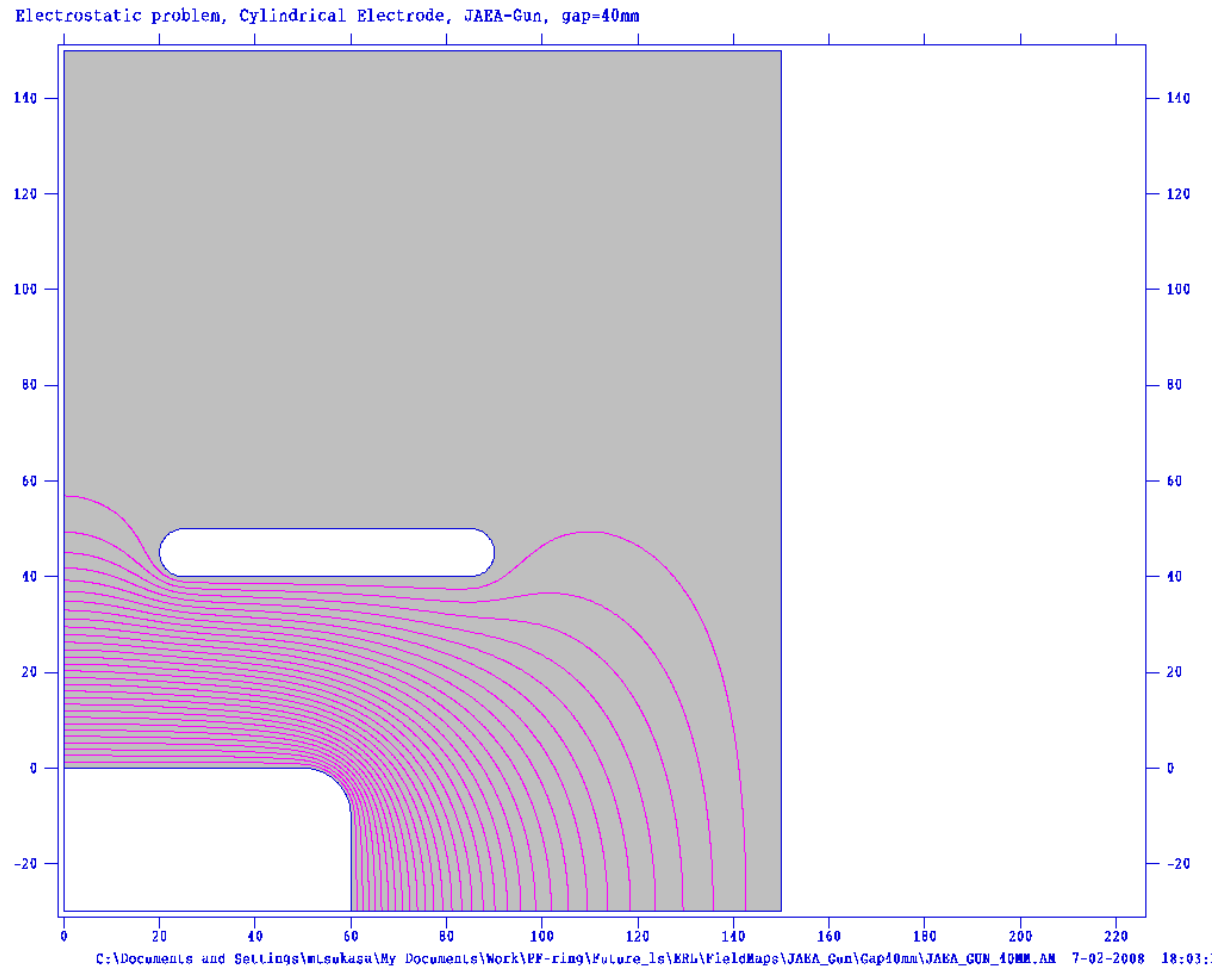
Gun + solenoid

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Field of JAEA gun with gap of 40mm

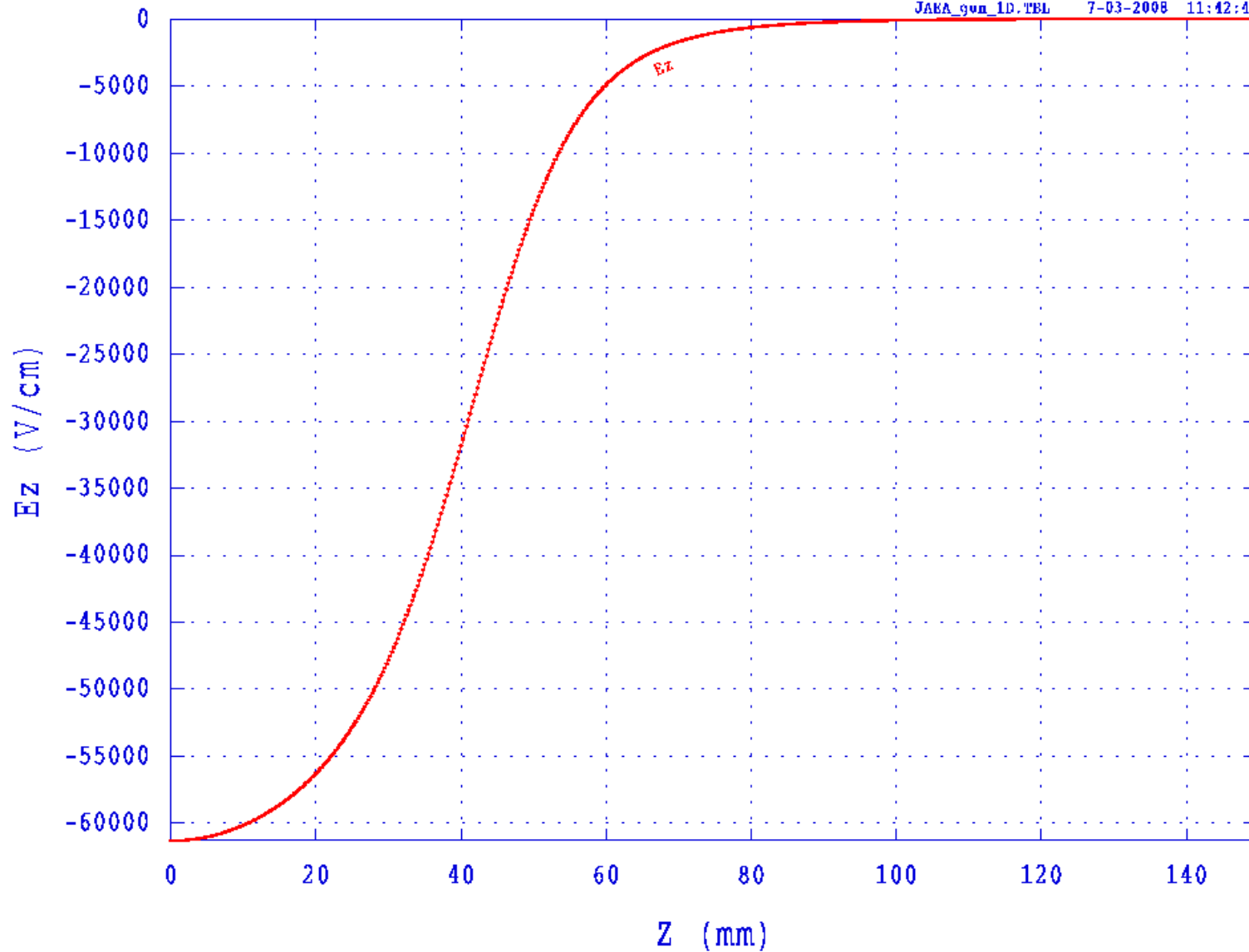
- Gap between cathode and anode is 40 mm.



Electric field data from file JAEA_GUN_40MM.AM

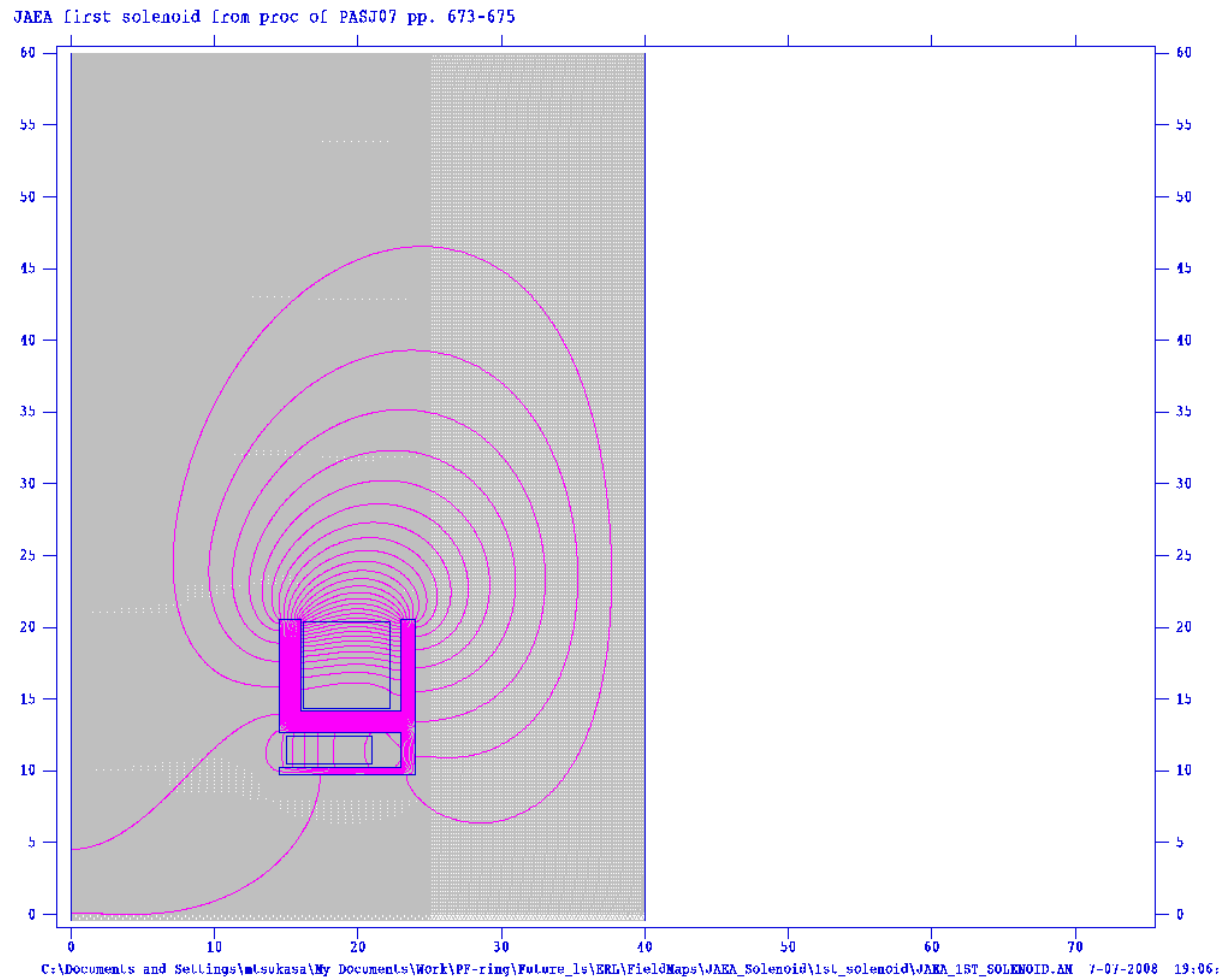
Problem title line 1: Electrostatic problem, Cylindrical Electrode, JAEA-Gun, gap=40mm

JAEA_gun_1D.TEL 7-03-2008 11:42:48



Field map of 1st solenoid

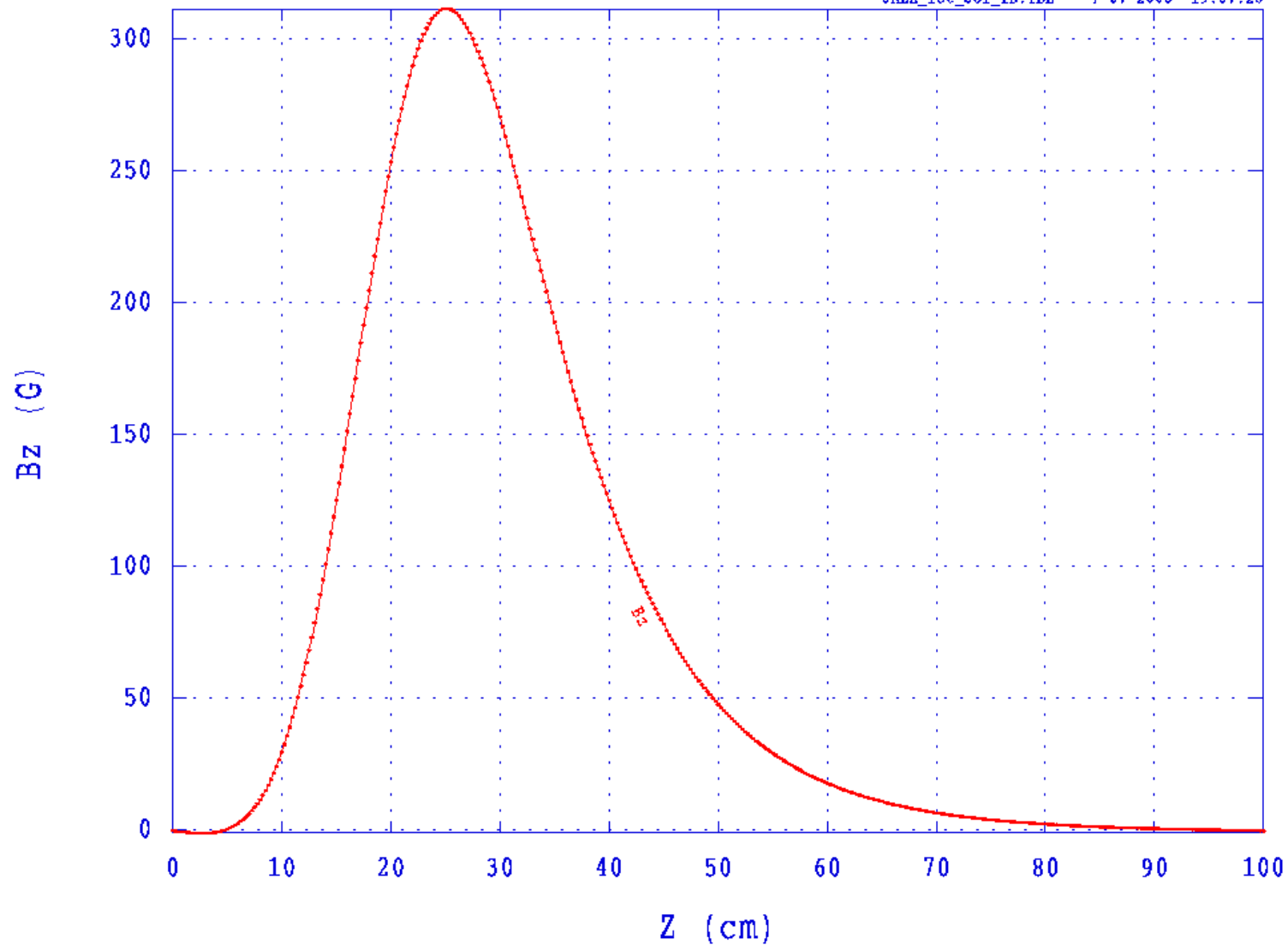
- Excitation current is 280 A.



Magnetic field data from file JAEA_1ST_SOLENOID.AM

Problem title line 1: JAEA first solenoid from proc of PASJ07 pp. 673-675

JAEA_1st_sol_ID.TBL 7-07-2008 19:07:28

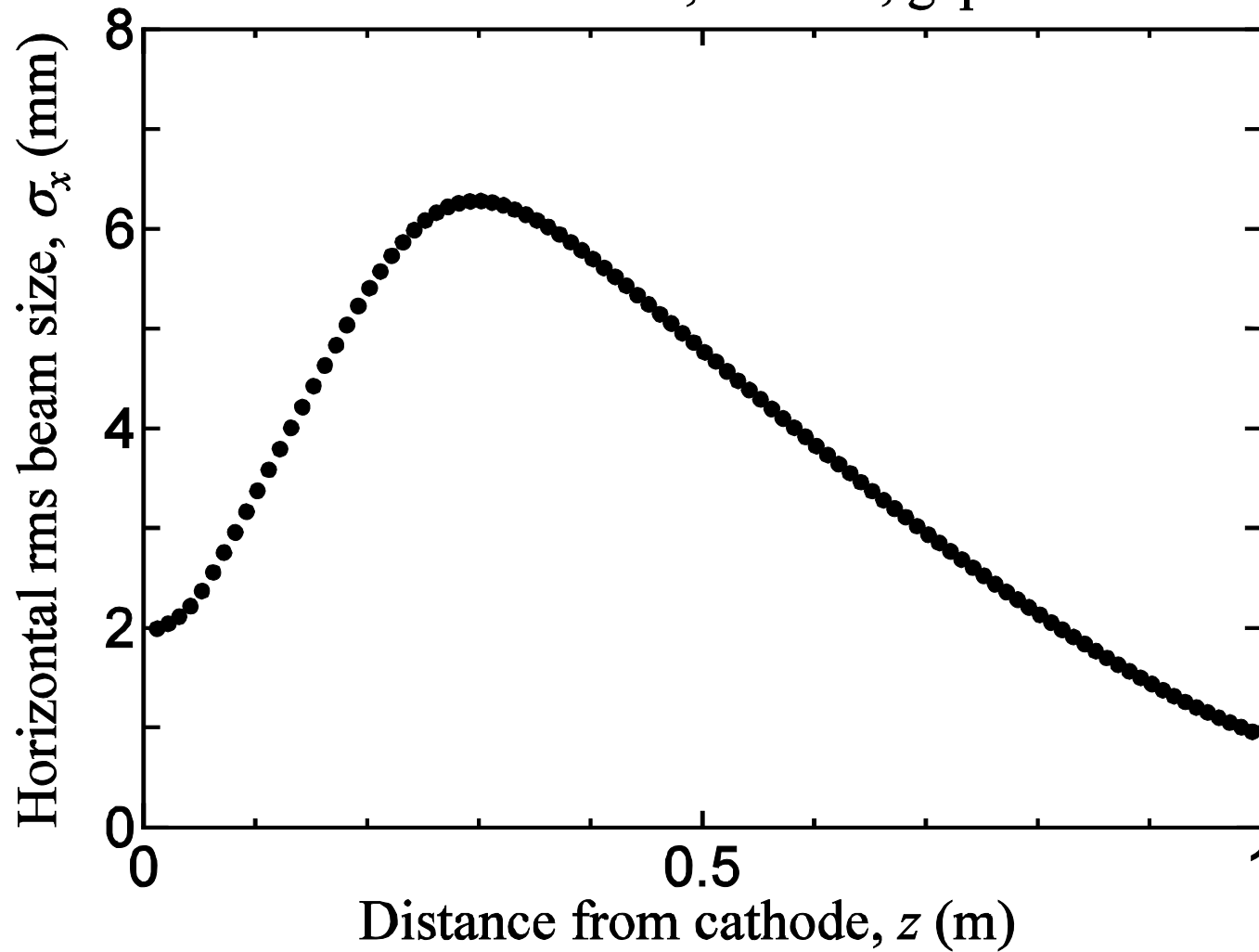


Simulation using GPT

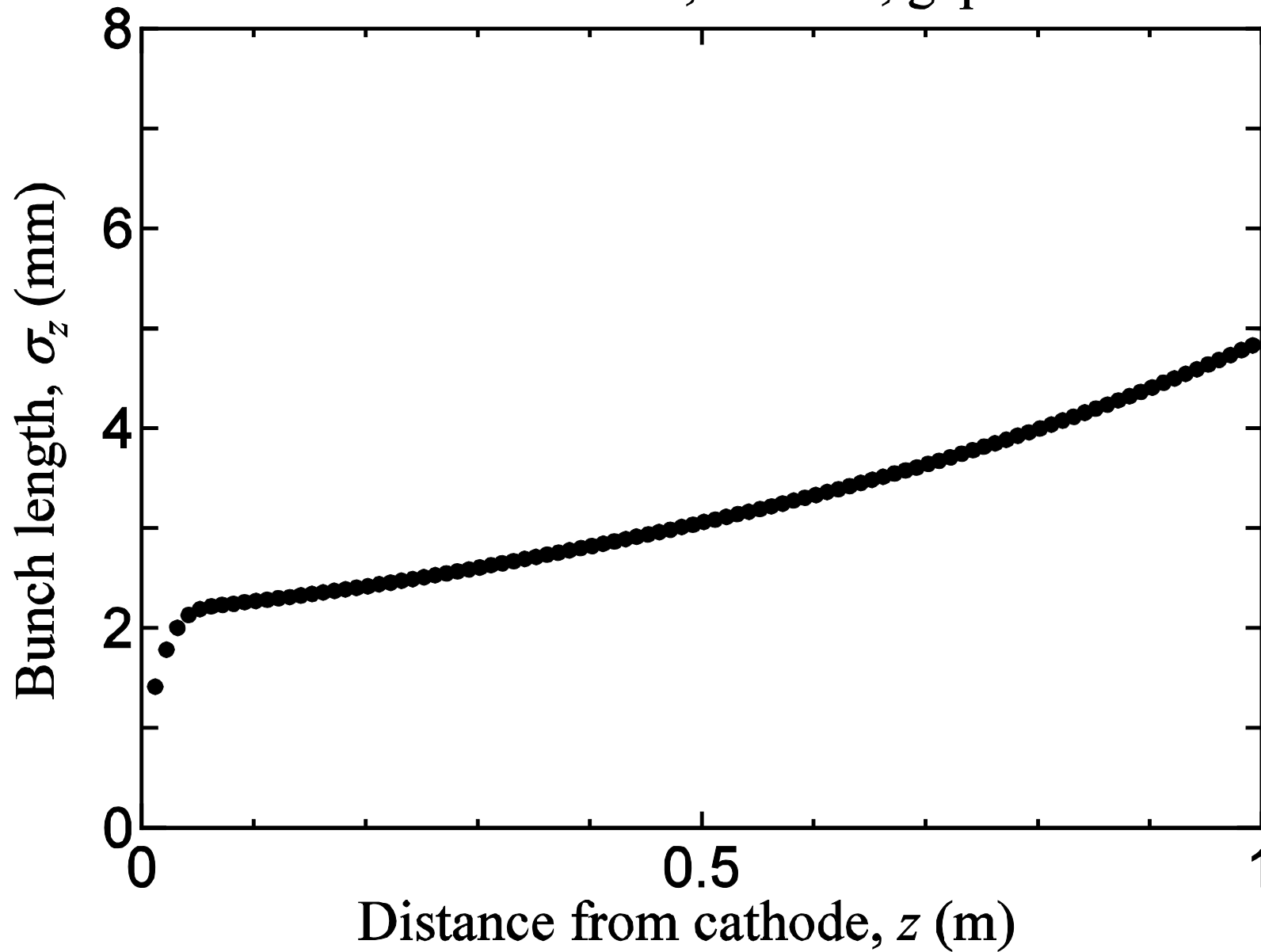
- Number of particles: 10k
- Thermal energy at cathode: $kT = 120$ meV
- Gun voltage: 250 kV
- Space charge calculation: spacecharge3Dmesh

Test results

JAEA Gun beam line, 250 kV, gap of 40 mm



JAEA Gun beam line, 250 kV, gap of 40 mm



JAEA Gun beam line, 250 kV, gap of 40 mm

