1　　　3mm
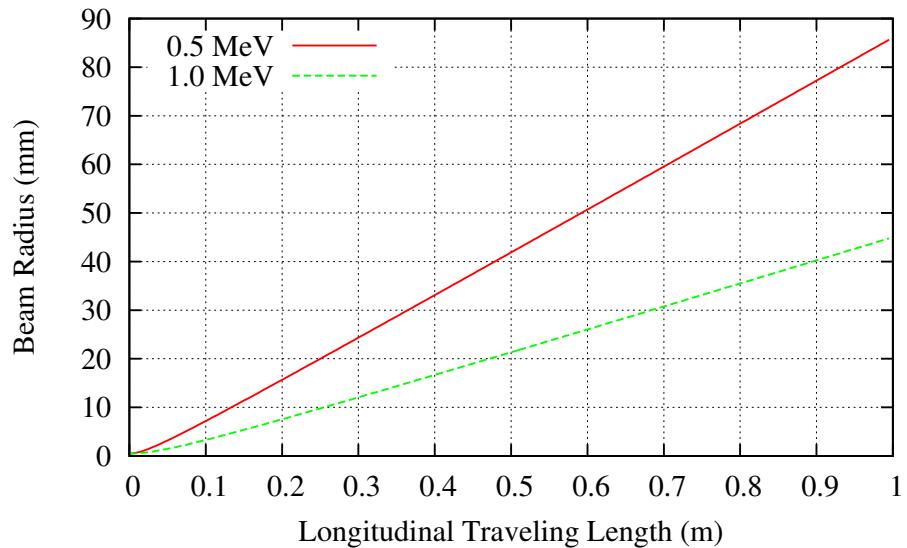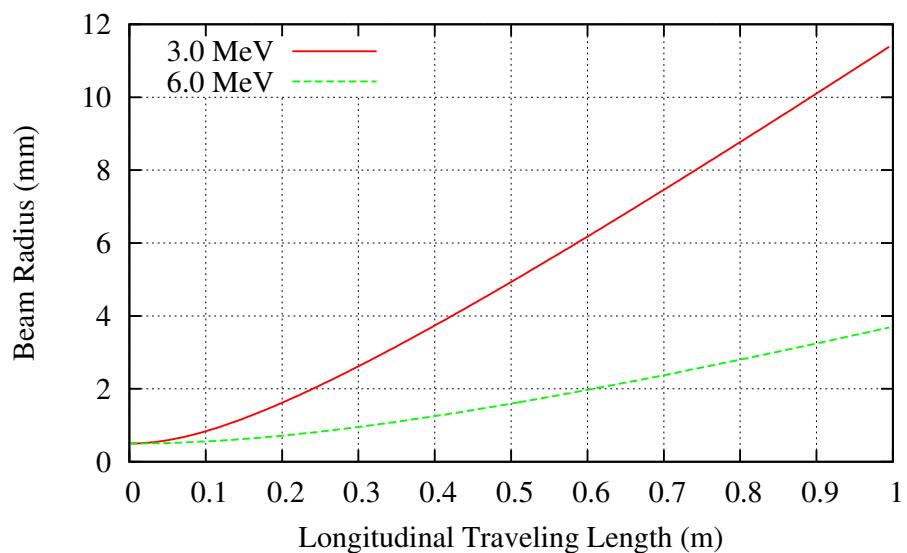
1.1　Transverse

Free Space Beam Envelop Equation
Initial Conditions
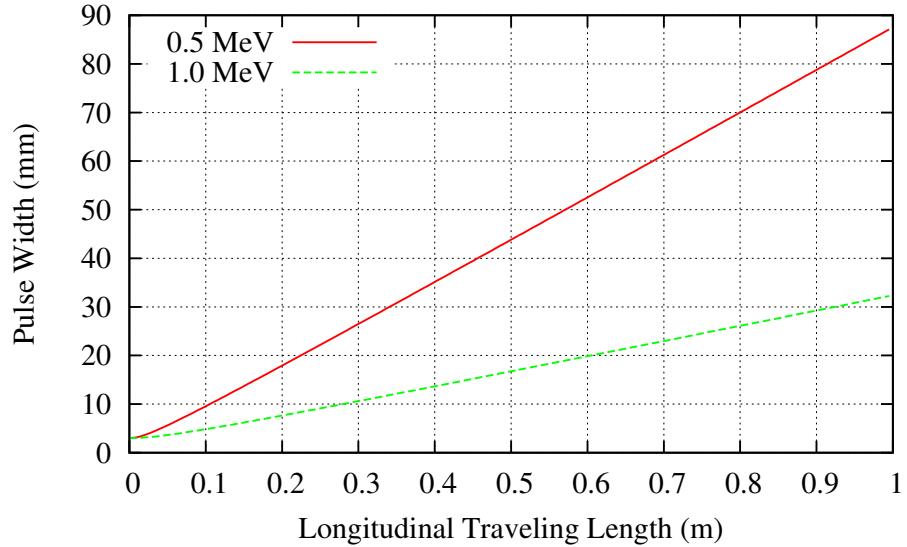Pulse width = 3 mm, Beam size = ϕ1mm, Charge = 1nC/bunch

Free Space Beam Envelop Equation
Initial Conditions
Pulse width = 3 mm, Beam size = ϕ1mm, Charge = 1nC/bunch

1.2   Longitudinal

Free Space Beam Envelop Equation
Initial Conditions
Pulse width = 3 mm, Beam size = φ1mm, Charge = 1nC/bunch

Pulse Width (mm) vs Longitudinal Traveling Length (m)

Legend: 0.5 MeV, 1.0 MeV

Free Space Beam Envelop Equation
Initial Conditions
Pulse width = 3 mm, Beam size = φ1mm, Charge = 1nC/bunch

Pulse Width (mm) vs Longitudinal Traveling Length (m)

Legend: 3.0 MeV, 6.0 MeV

2　200mm

2.1　Transverse

Free Space Beam Envelop Equation
Initial Conditions
Pulse width = 200 mm, Beam size = ϕ1mm, Charge = 1nC/bunch

Free Space Beam Envelop Equation
Initial Conditions
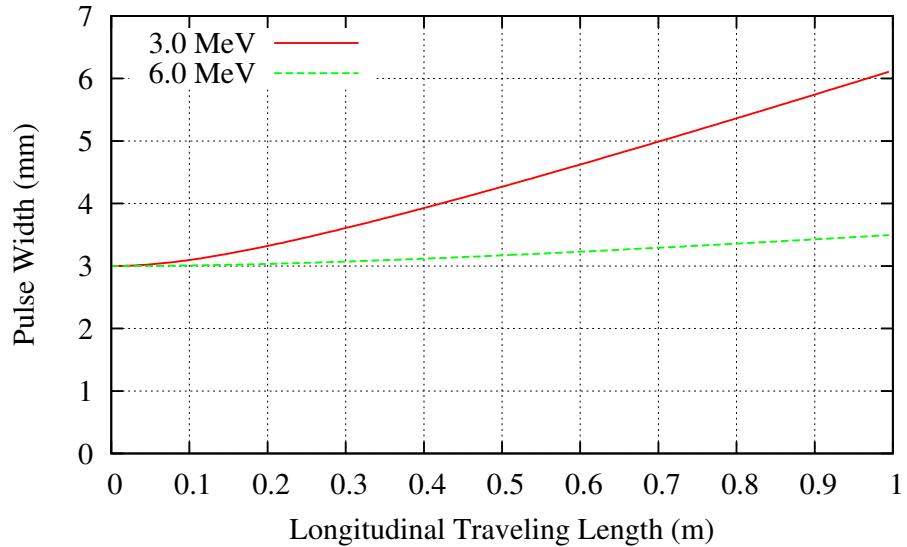Pulse width = 200 mm, Beam size = ϕ1mm, Charge = 1nC/bunch

2.2 Longitudinal

Free Space Beam Envelop Equation
Initial Conditions
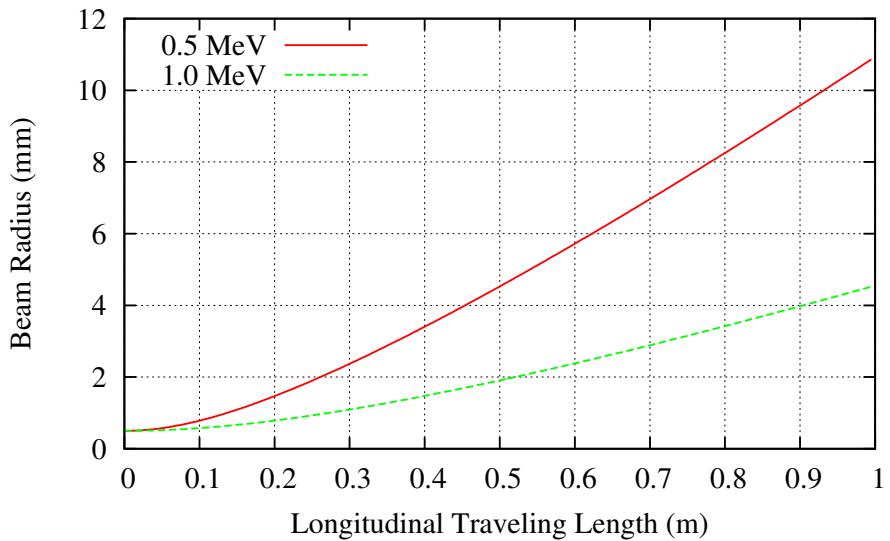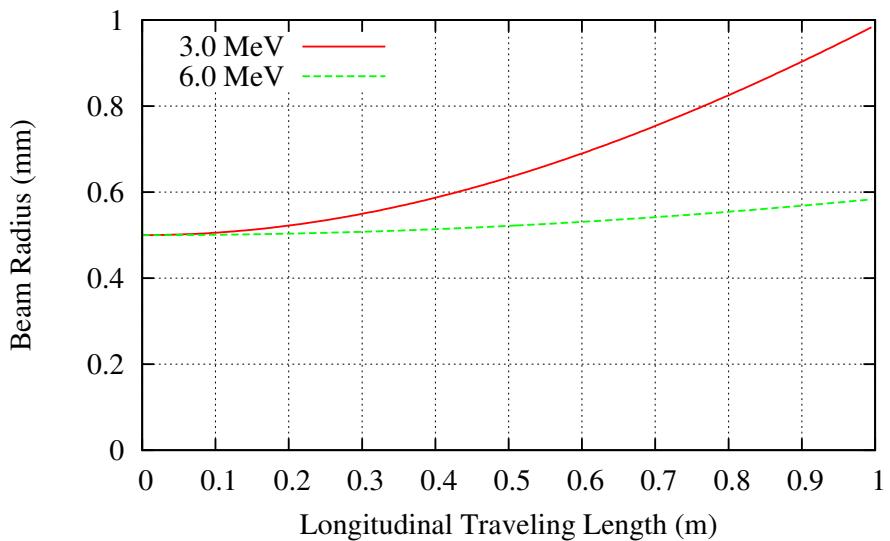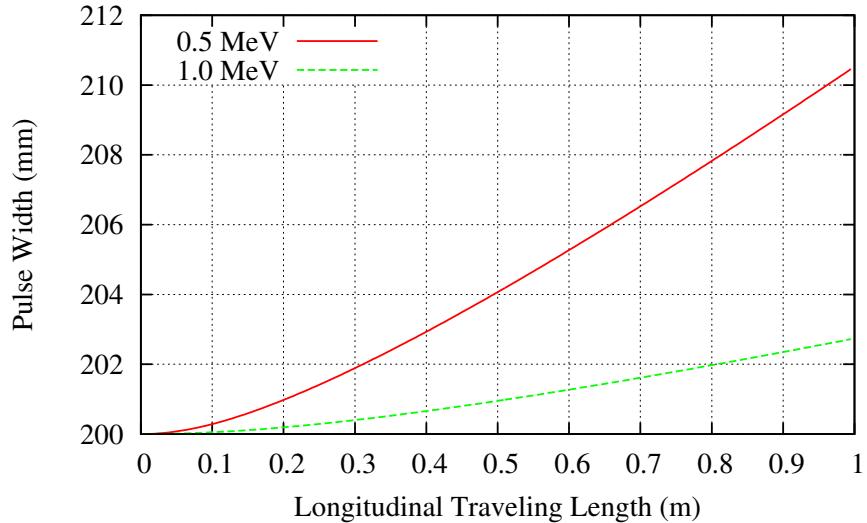Pulse width = 200 mm, Beam size = φ1mm, Charge = 1nC/bunch

Free Space Beam Envelop Equation
Initial Conditions
Pulse width = 200 mm, Beam size = φ1mm, Charge = 1nC/bunch