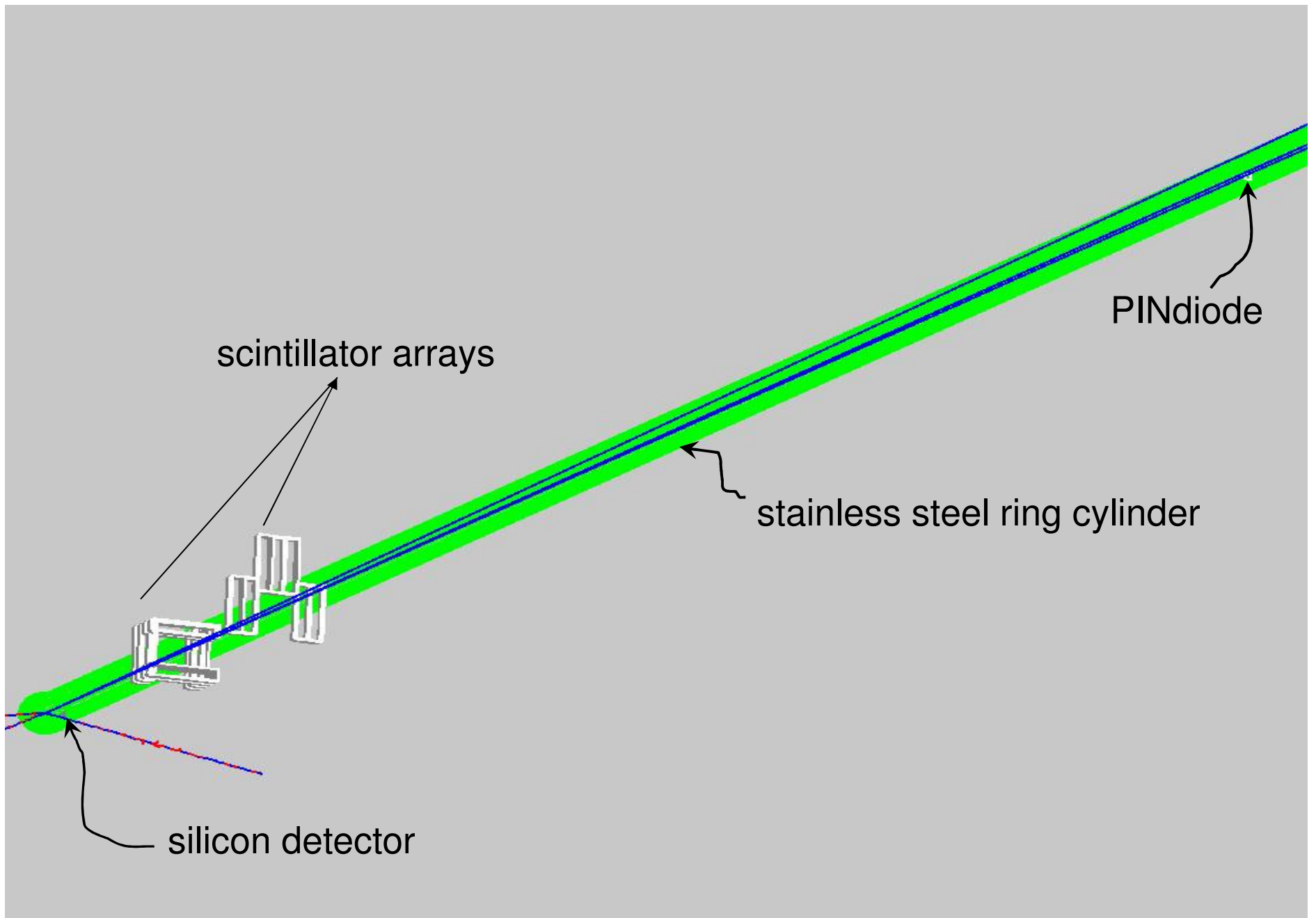


# Simulation Analysis of EXL Experiment at ESR

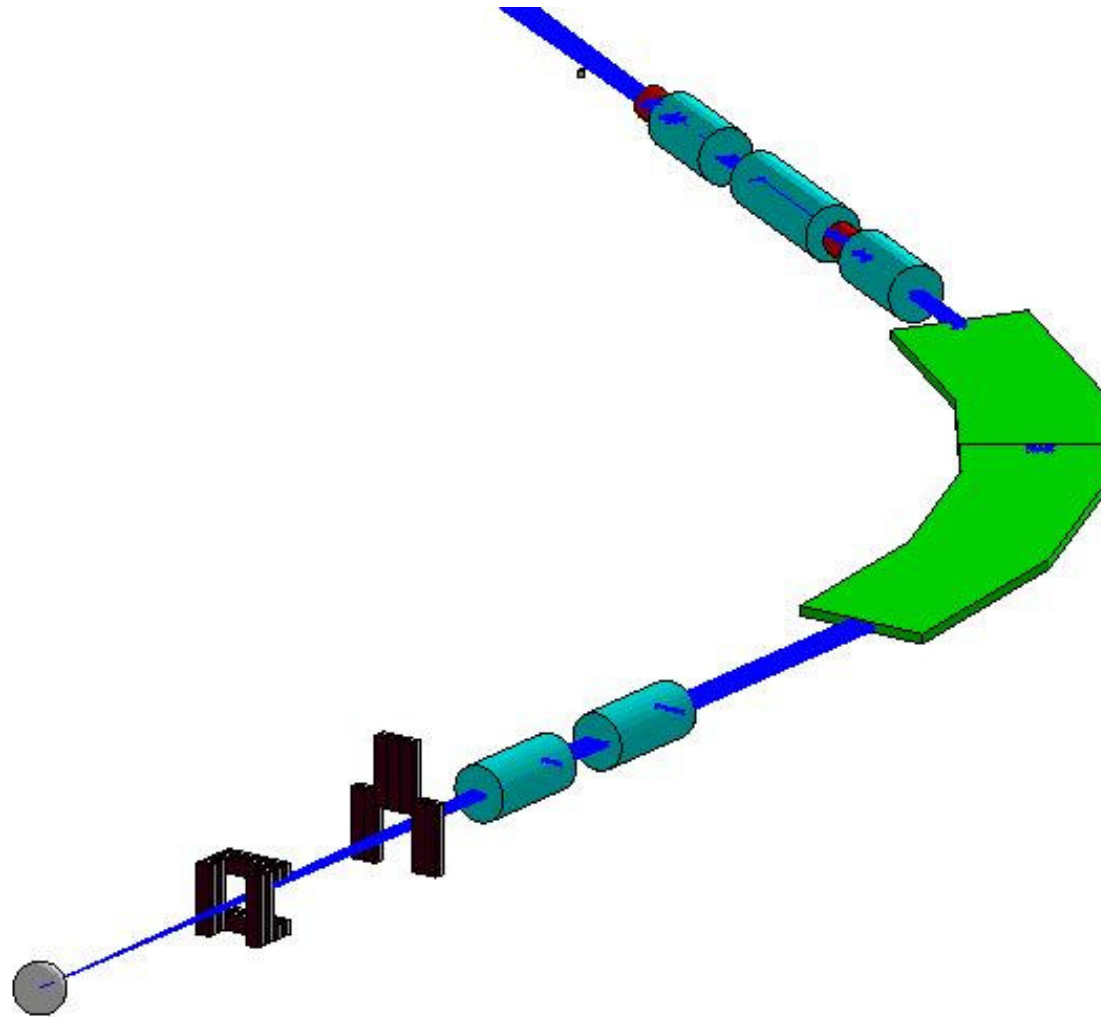
Hossein Moeini

KVI, University of Groningen, The Netherlands,

# Our Simulated Experimental Setup

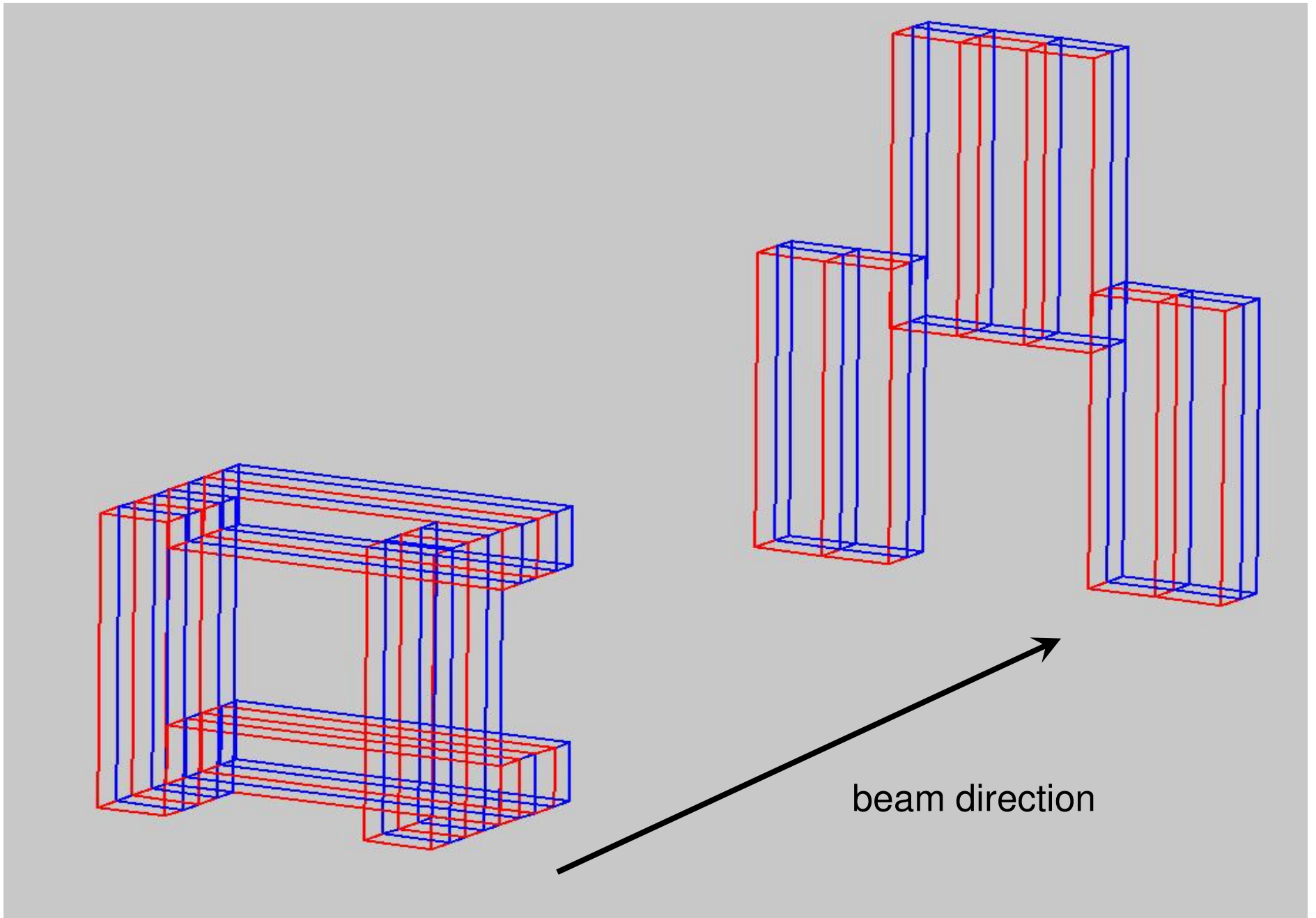


# Experimental Setup at ESR Ring – Mirror Image

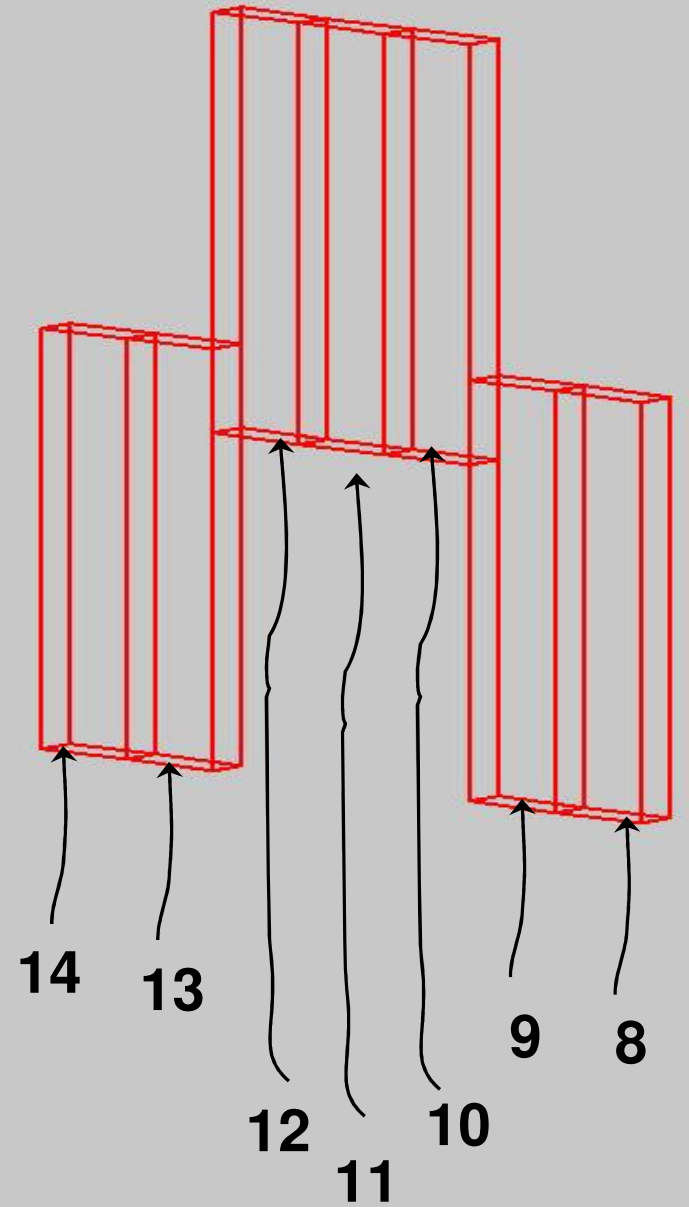
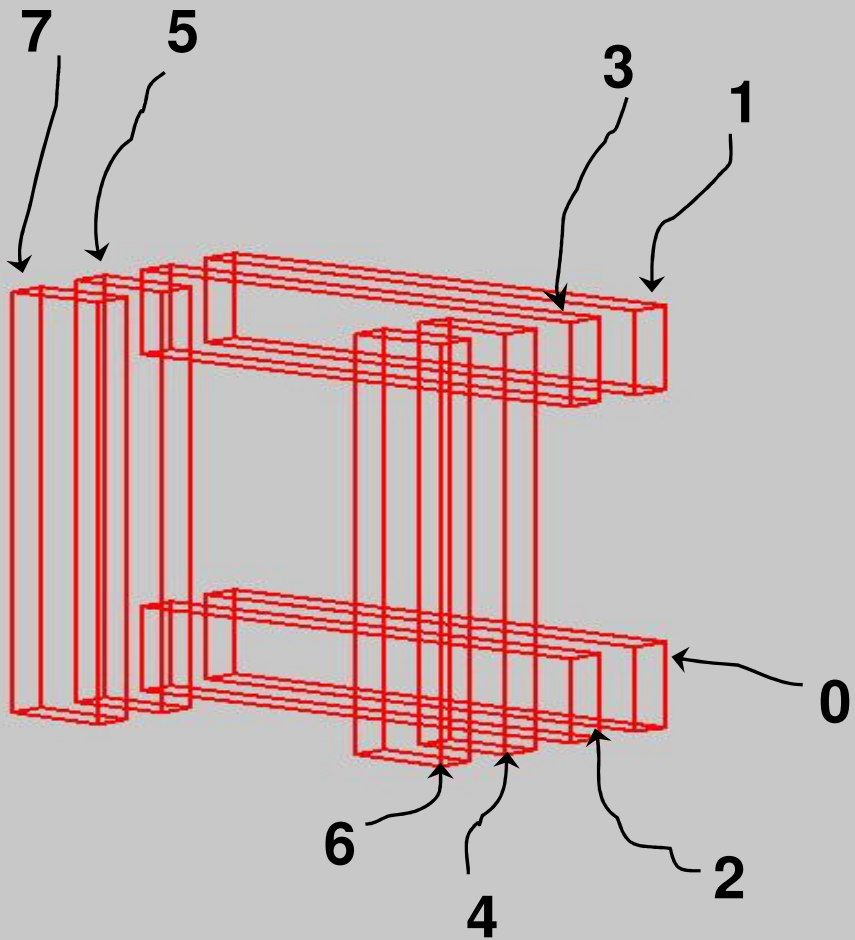


Done by Masoud Shafiei, University of Tehran

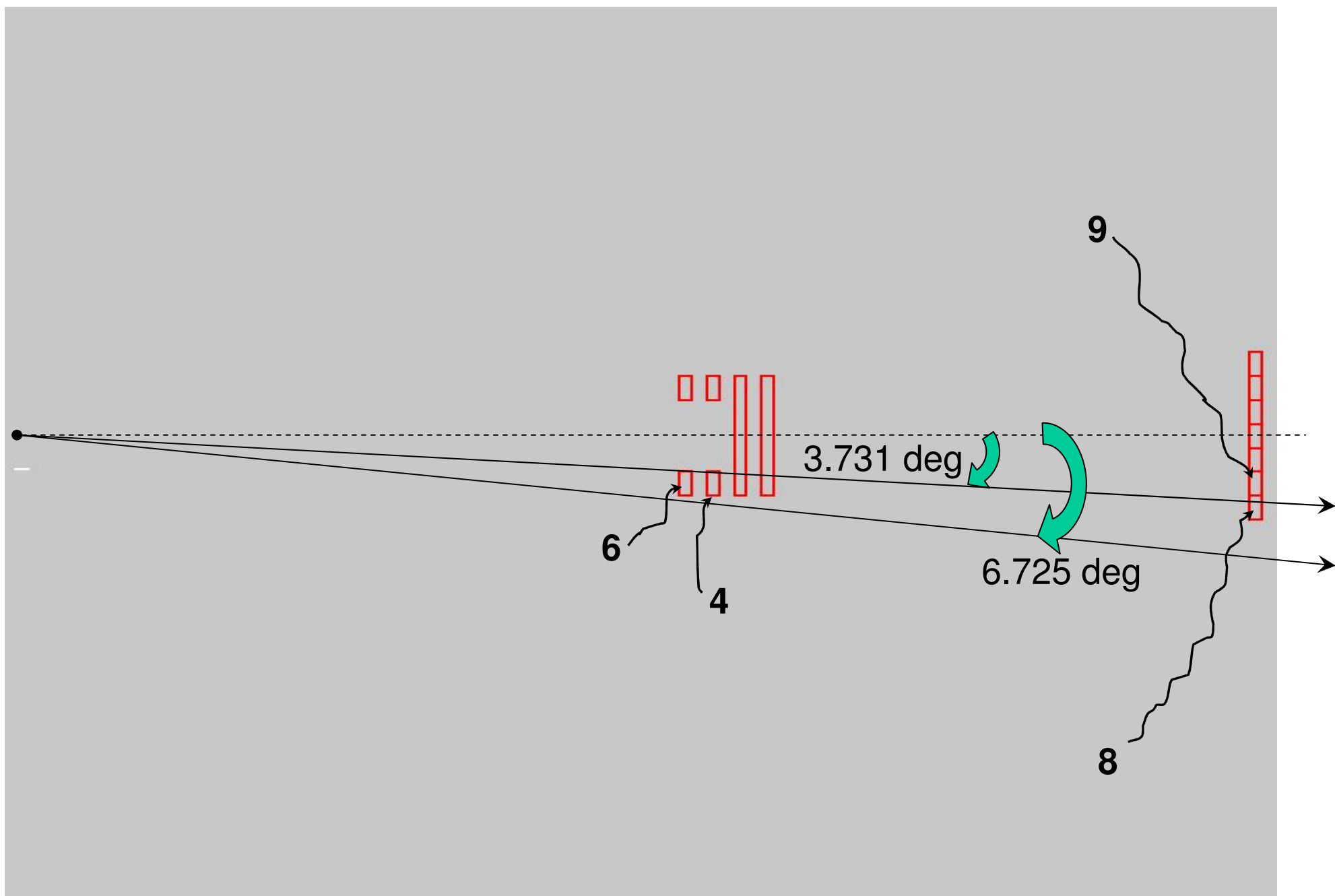
# Iron-Scintillator bars



# Only Scintillator bars

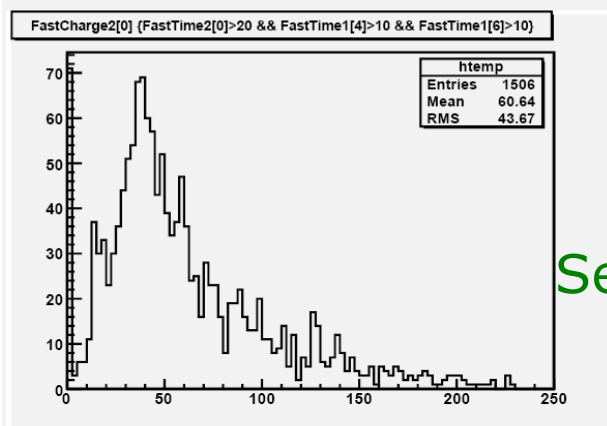
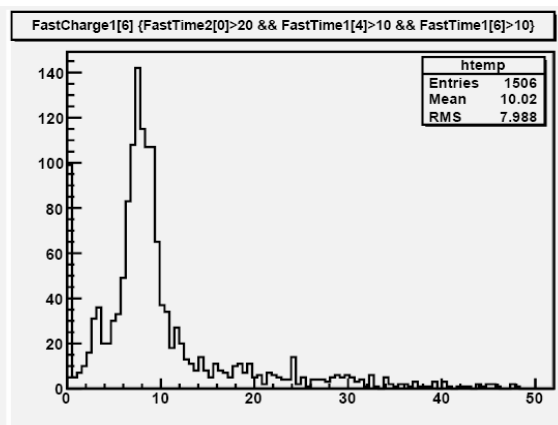
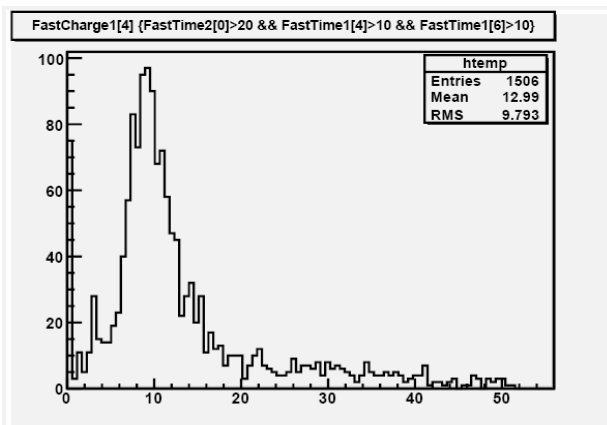


# Scintillator Arrays – Top View



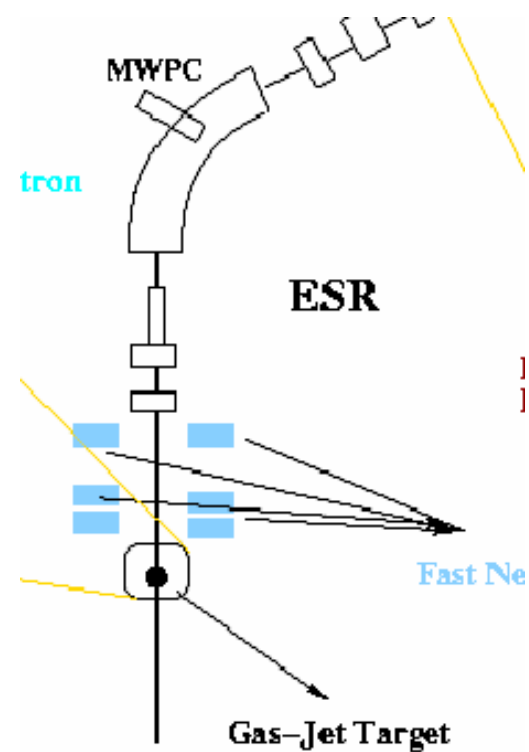
# Experimental Analysis - Proton Condition

First set of scintillators

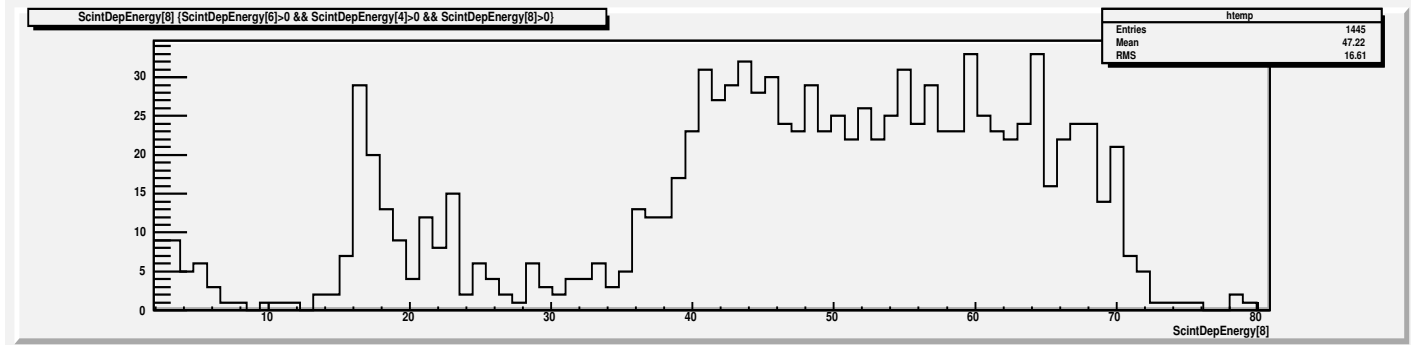
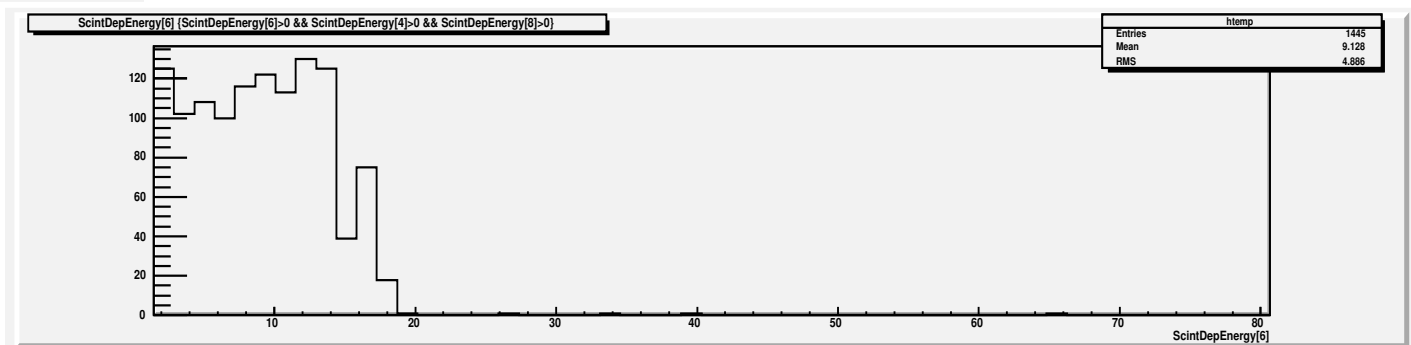
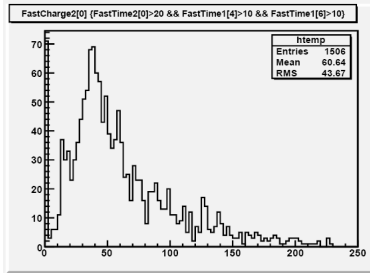
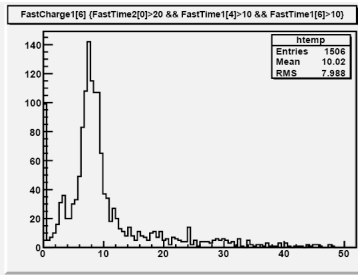
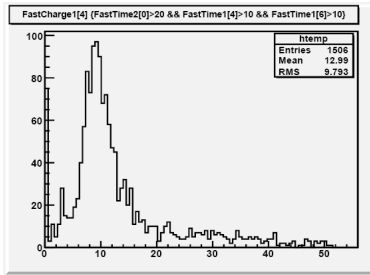


Second set

Requiring 3 in-line firing for scintillators

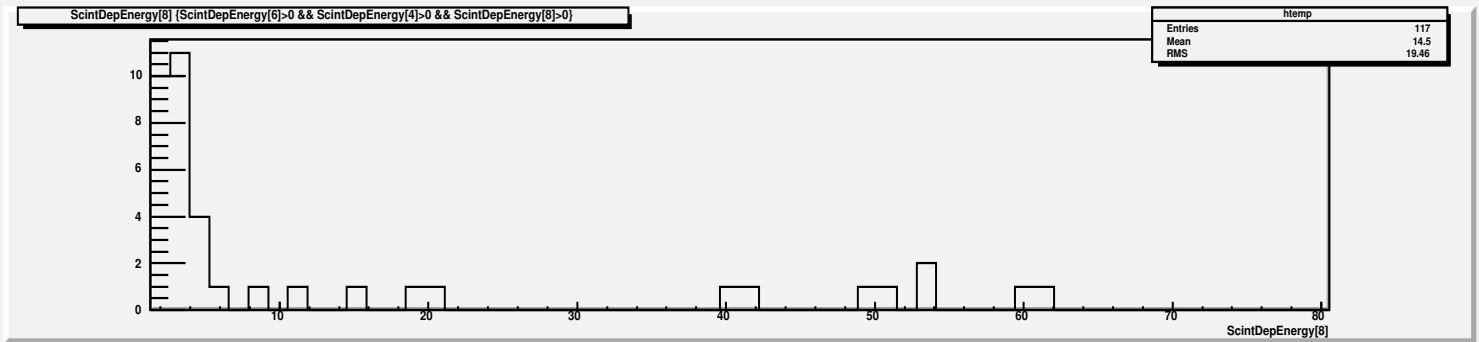
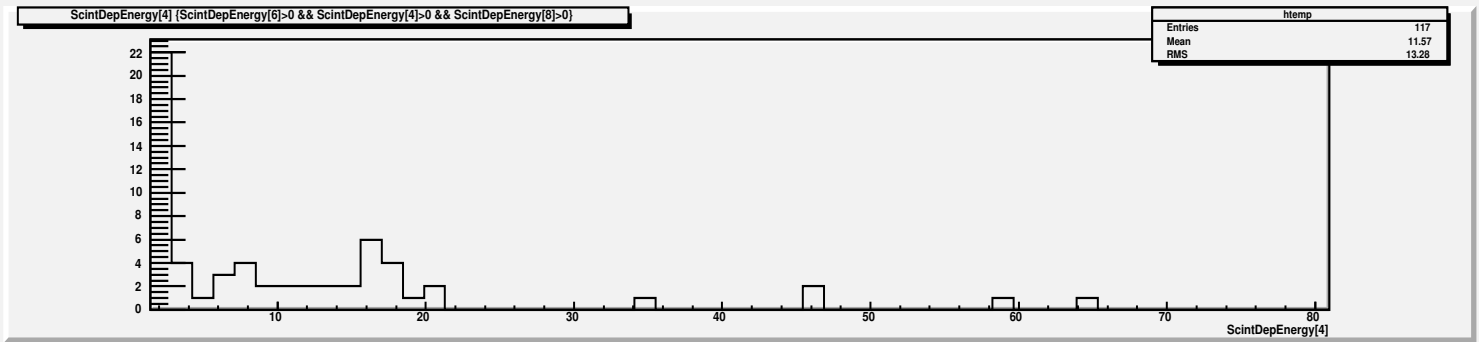
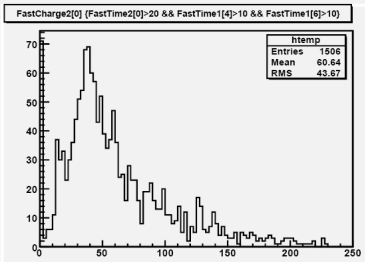
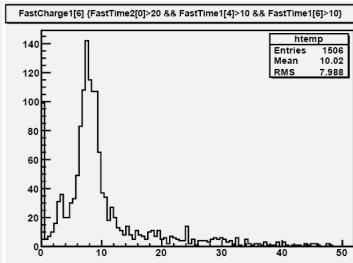
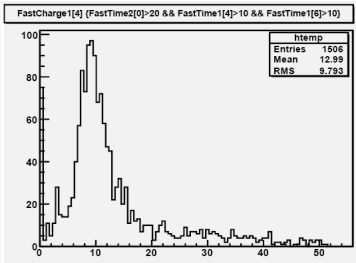


# Proton Generation @ 350MeV

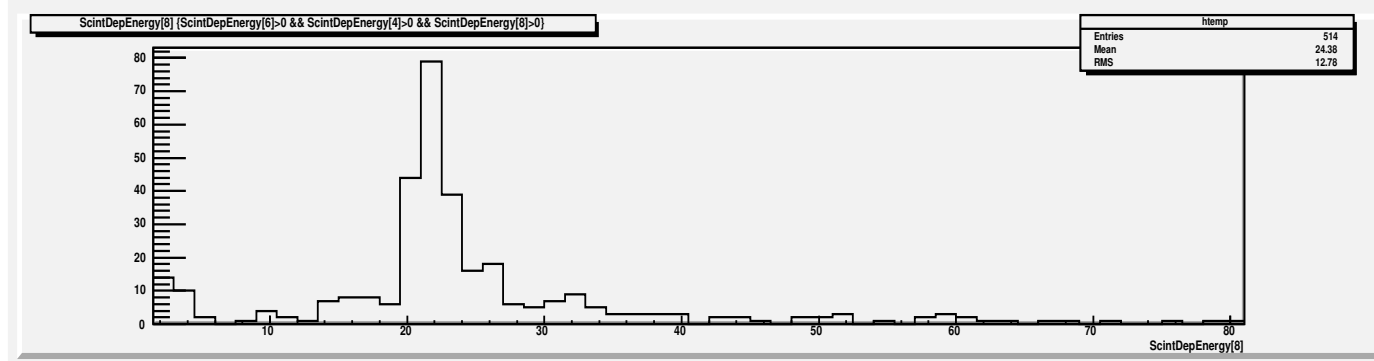
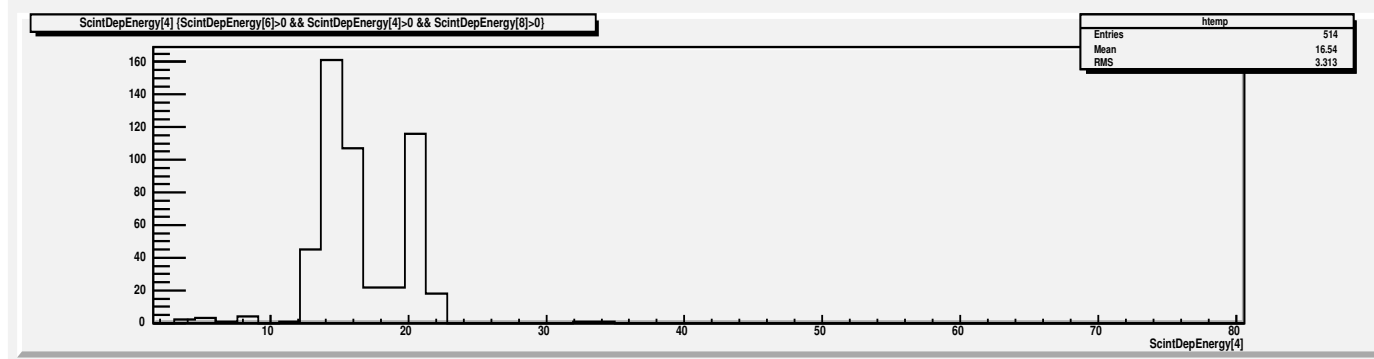
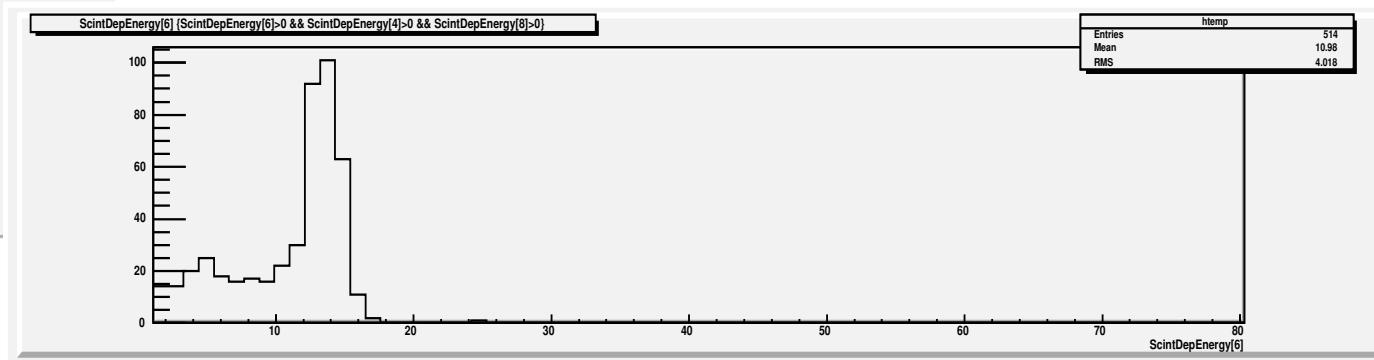
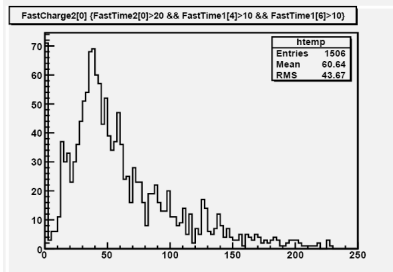
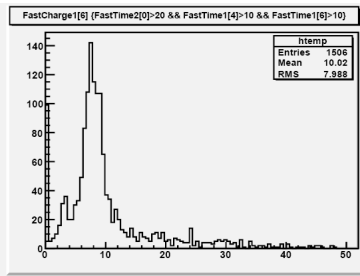
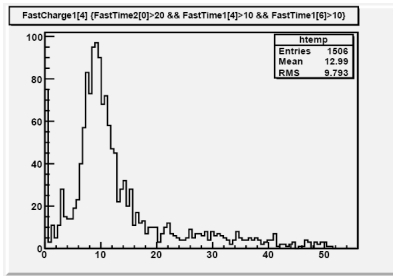




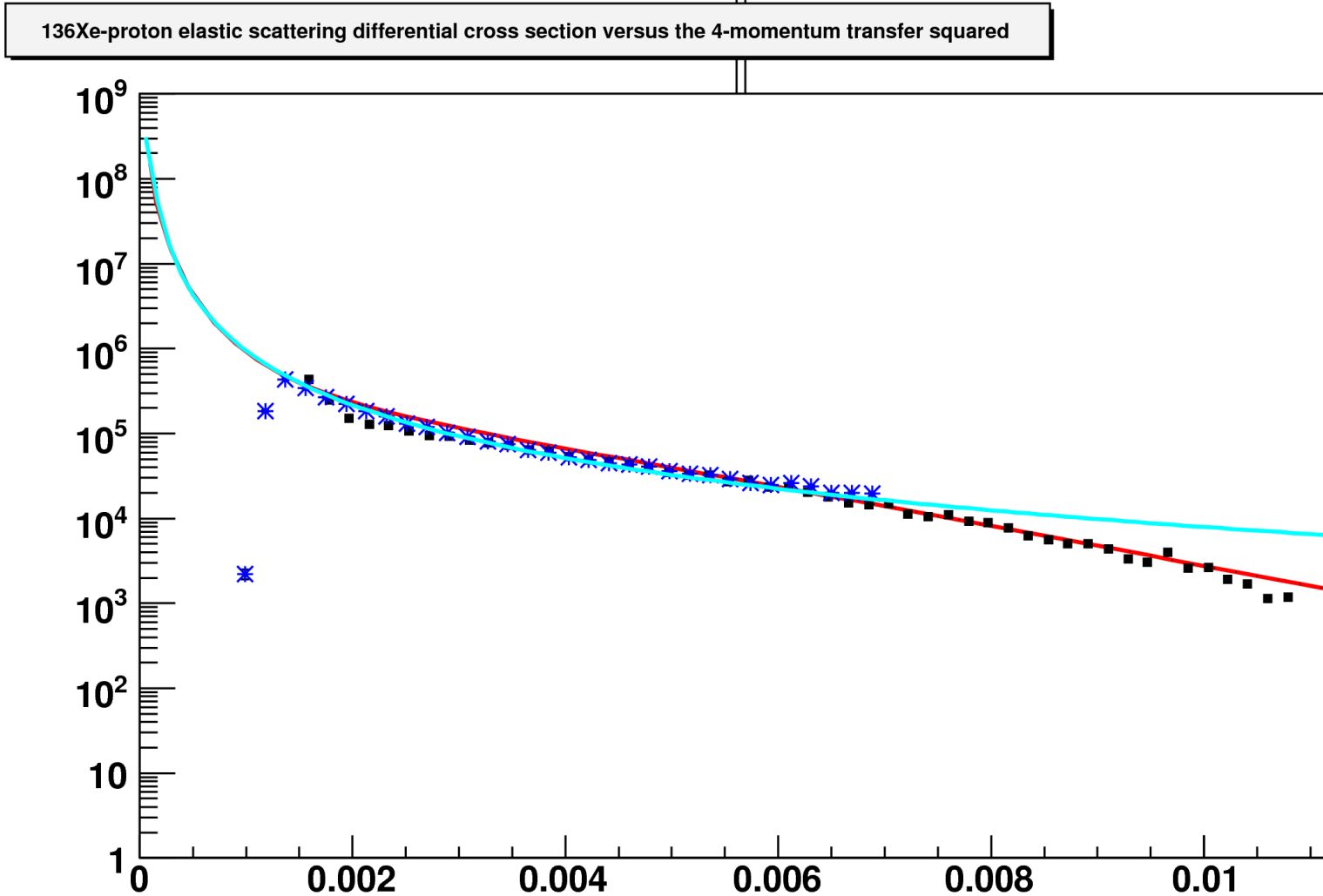
# Neutron Generation @ 350MeV



# Proton Generation @ 400MeV



# Elastic Scattering Differential Cross Section Versus Relativistic Momentum transfer Squared



*Experimental results (black squares), theoretical points (red curve), fitted curve to theoretical points (cyan curve), simulation analysis (stars)*