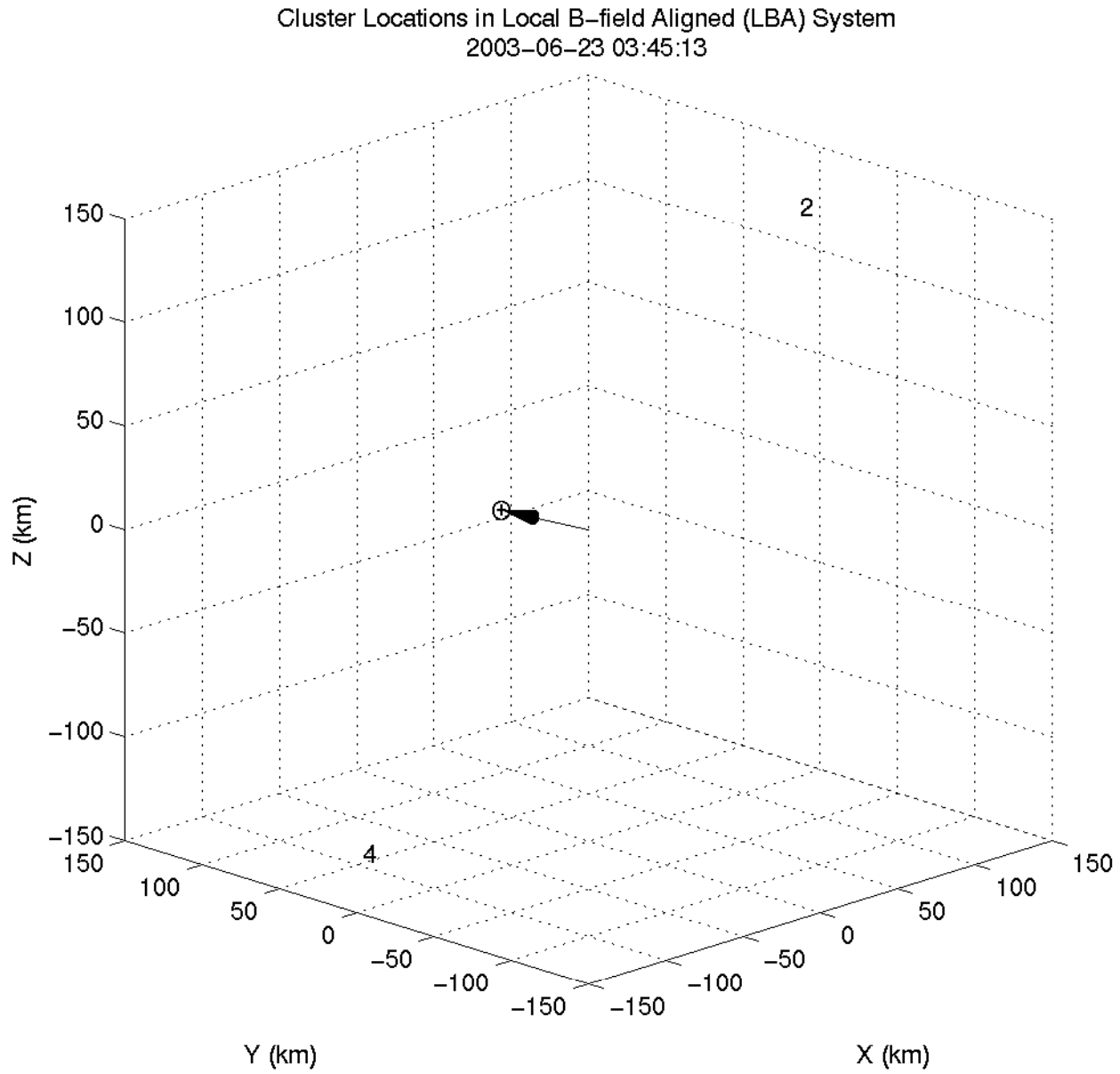$R_E$ = 4.4144
MLat = 12.5139
MLT = 16.7828
L = 4.6319