

K4 Tetrahedron Lattice

Vertices: $V = 4$
Edges: $E = 6$
Euler char: $\chi = 2$

Centroid distance:
 $r/a = \sqrt{3/8} \approx 0.612$

Solid angle per vertex:
 $\Omega = \arccos(-1/3) \approx 109.47^\circ$

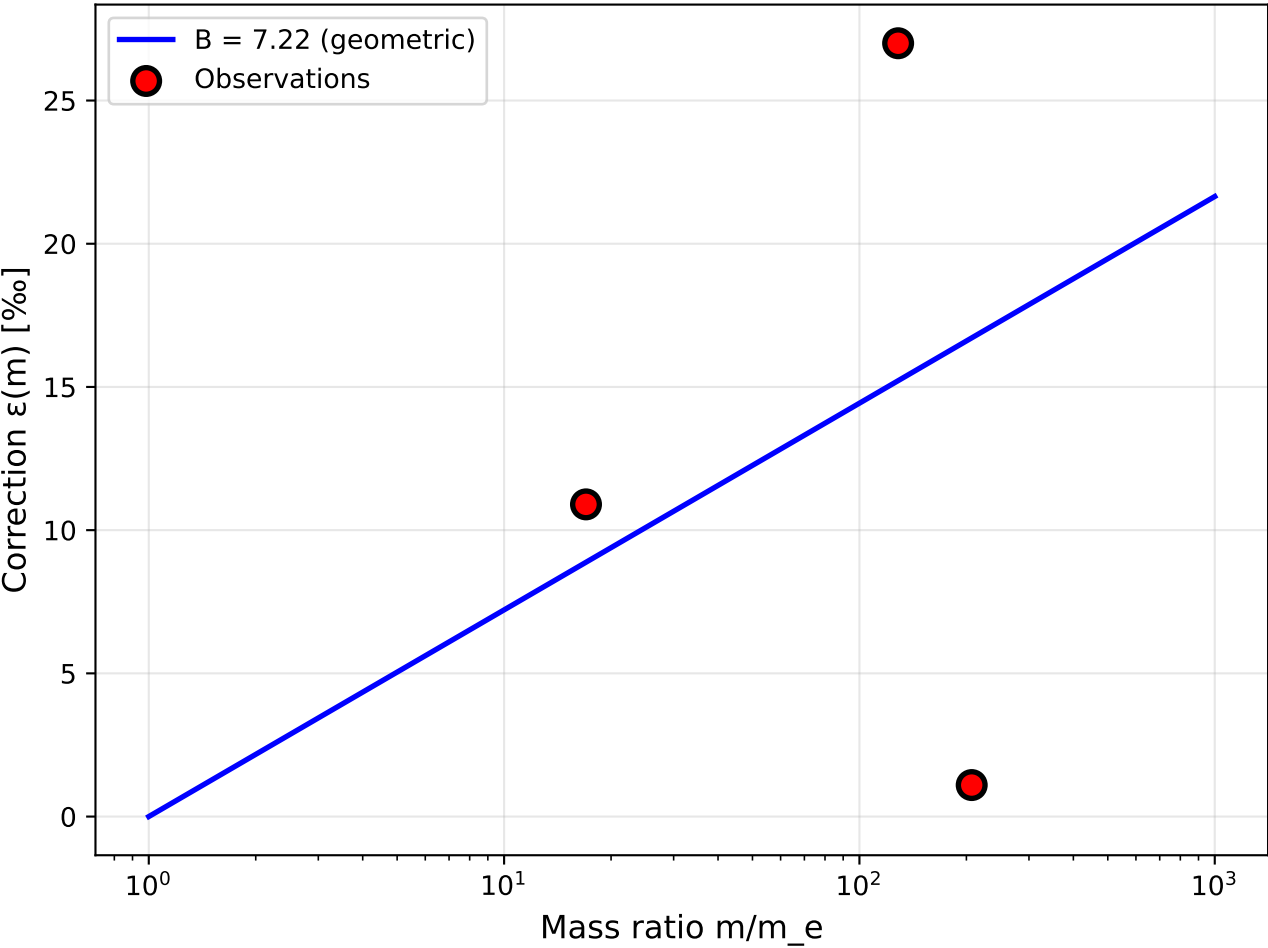
Total coverage:
 $4\Omega \approx 4\pi$ (complete)

Geometric Formulas for B

$E + (\chi/\pi)\Omega = 7.22$	$\Delta = 0.26$
$4\Omega = 7.64$	$\Delta = 0.68$
$(E+V)/\chi = 5.00$	$\Delta = 1.96$

Target: $B = 6.96$ (empirical)

Geometric Prediction vs Observations



Geometric Formula Candidates

