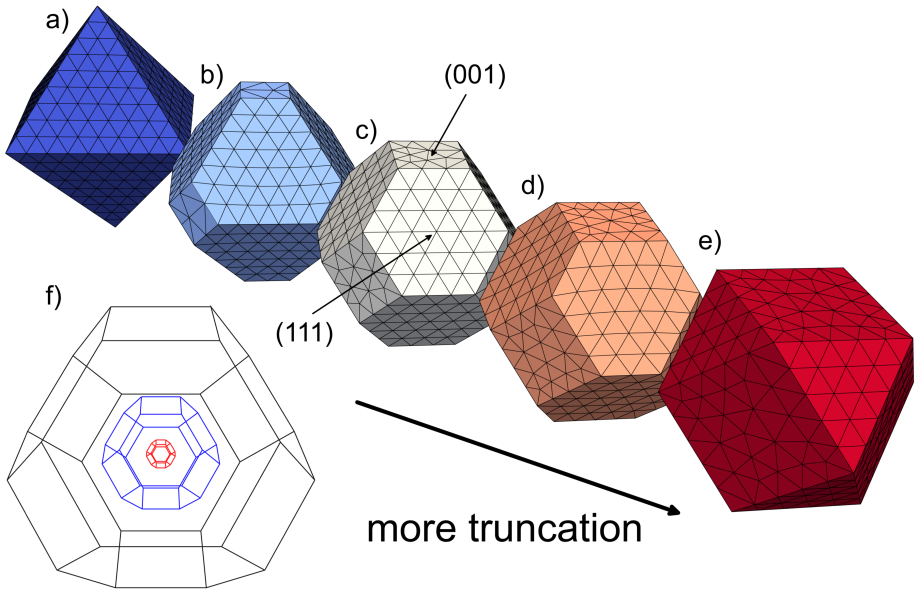

Figure 1: FE meshes of the model euhedral geometries. From a) a regular octahedron, the rest are obtained by increasingly cutting more off the corners such that the edges of the octahedron are: b) halved (min. t. octahedron); c) reduced to a third (regular t. octahedron); d) reduced to a quarter (max. t. octahedron). e) A regular cuboctahedron is obtained by truncating to the point where the octahedron edges disappear entirely. The easy axes of magnetisation are the <111> and the hard are the <001>, which are normal to the hexagonal {111} and square {001} faces, respectively, of the truncated octahedra. For a sense of scale, f) three nested regular truncated octahedra are shown with sizes 30 nm (red), 120 nm (blue) and 300 nm (black).