

## ASci Seminar Talk July 1, 2015, Otaniemi

## Distinguished Professor Gaven Martin Massey University, New Zealand

I will discuss some modern and historical aspects of the influential research manifesto published in 1872 by Felix Klein and commonly known as the Erlanger Programme. Klein proposed a new way to classify and characterize geometries on the basis of group theory. I will go over this history and how it relates to modern three dimensional topology and geometry. I'll then talk about my recent solution of Siegel's problem from 1945 concerning the tightest packing of hyperbolic 3-space by congruent pieces – you will have seen the two dimensional version of this in Escher's "circle limit" woodcuts.