

Abstract Submitted
for the NES07 Meeting of
The American Physical Society

Sorting Category: 01. (T)

A Visual Representation of the Standard Model DOUGLAS SWEETSER, none — Software is used to visualize unit quaternions $SU(2)$ as a 3D animation. Random quaternions are run through a quaternion exponential function. The results are sorted by time and placed in a frame of the animation corresponding to their 3D coordinates. The resulting animation shows a sphere with an apparent disdain for the past. The visual representation of electro-weak symmetry looks like a complete sphere with a bias for the past. The animation for $U(1)\times SU(2)\times SU(3)$ is the smoothest image of an expanding/contracting sphere that could be created. Any pattern of events can be represented by this group. Spheres of slightly different sizes nearby on the manifold would belong to the group $Diff(M)$ which is at the heart of gravity.

- Prefer Oral Session
 Prefer Poster Session

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Date submitted: 13 Apr 2007

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