In 2000 my colleagues, Professor Sherri Smith at the School of Art&Design and Dr. Gordy Kane in the Physics Department at the University of Michigan in Ann Arbor, initiated discussions and collaborations between physicists and artists/designers. With the support of Dean Bryan Rogers several of these collaborations are still going, and with the financial support of Dean Rogers and the Office of the Vice President of Research at University of Michigan, I have been able to keep up the development over an extended period of time.

My first encounter in this field was done in collaboration with physicist Dr. Phil Bucksbaum, where I tried to break into the thought processes and concepts of subatomic physics by making a 3-dimensional interpretation of an electron. By using 3D software and rapid prototyping (stereolithography), then modular multiplication of resin sectorial parts in silicon molds, I created a sculptural piece called the Electron (photos below).

The geometric and visual idea behind the Electron was to create a spatial form based on one continuous line in space; defining a field in space - extending from and contracting towards the center of the piece - a self-sustained, yet limited vortex of movement. Dia. approx. 30”

The Electron was shown at a group show at the Physics Department, which in turn led to discussion with Gordy and Dr. David Gerdes on developing a complete visual nomenclature of subatomic particles. Over a period of several years we discussed concepts and developed a mutual understanding of what we wanted to convey. In all honesty and with a deep respect for their work, I know David and Gordy to be very patient, as the abstractions of mathematics and theory was a far stretch for me to get a grip on.

Through discussions of visual iterations we settled for what is partially presented at this event. The images in this exhibition represent a fraction, less than 1%, of all the images created - a long haul indeed. We’ve proceeded to work out a book proposal to reach for a wider audience. The book is planned with 17 chapters, of which we’ve presented the Top Quark Chapter as a prototype.

The goal for the show is to nurture a future consensus on how to visually represent subatomic particle energy and matter. The importance of feedback from physicists and audiences at large on the exhibition can not be understated. Comments and critique on the project and works are welcomed to:

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