

*We will also have a plenary session by:*

***CLINT SPROTT***

*Dr. Sprott is a Physics Professor at University of Wisconsin-Madison, author of the "Chaos Data Analyzer" software, and an expert at visualization of complex systems. He will be discussing "Can a Monkey with a Computer Create Art?"*

While studying chaotic dynamical systems, I inadvertently generated a few million fractal images, called strange attractors. These images were selected by the computer from among a few billion cases that were analyzed. I showed a few thousand of these to about a dozen artists and scientists who evaluated them aesthetically. From that I discovered a strong correlation between their aesthetic quality and mathematical properties such as fractal dimension and Lyapunov exponent. Then I was able to train the computer to be even more selective and to produce thousands of images, all different, and most which are aesthetically appealing. I will describe the process and show examples of the images produced in this way and will even produce some new ones during the talk.