1154-97-2742 **Boyan S. Kostadinov*** (bkostadinov@citytech.cuny.edu). *A Project-based Promulgation of Computational Thinking in Mathematics.*

In this talk, we present several projects designed to mix programming, mathematics and experimentation. The mathematics behind the projects makes use of finite sums of complex exponentials, out of phase logarithmic spirals to visualize spiral galaxies, fractal systems, and other approaches for creating complex mathematical art. We also illustrate a sample workflow for implementing data science projects using RStudio, which now offers the ability to combine the power of R and Python in the same source R Markdown document, along with TeX expressions, allowing us to create publication quality project reports in several different formats, including interactive dashboards, which can deliver visually rich storytelling about the data being explored. (Received September 17, 2019)