



Barbara T. Faires Allegheny Mountain Colloquium

Speaker: Dr. Harvey Diamond (West Virginia University)
Date: Tuesday, 20 February 2024, 4:00–5:00PM
Zoom link: <https://bit.ly/allemo>
Title: Insights and Revelations:
Computational exploration with MATLAB

Abstract: Computation is generally understood to be a dreary assemblage of epsilons in its theory, decimal points in its output, and arcane programming syntax in its execution. But advances over the last two decades in the technology of computation, along with the development of compact, efficient, programming languages – yes, MATLAB – that provide, between them, a comprehensive environment for computation and visualization, have opened a new world for exploration. It is a world that interacts with mathematics, with inspiration passing in both directions, and as well, with the physical world, and the artistic. But it can also pose its own questions, and prompt its own natural paths, take you to remarkable vistas, both conceptual and visual, and might suddenly drop you right into the middle of some interesting mathematics you would not have otherwise encountered. We present some of those questions, paths, vistas, and mathematics, many that arose serendipitously, while teaching an introductory course in computation and MATLAB for nearly 20 years. We conclude with an obvious question: shouldn't we be teaching computation, for these, and a myriad of other practical reasons, to our freshman math students?

