

Meeting: 1003, Atlanta, Georgia, MAA CP X1

1003-X1-513 **Melkana A Brakalova-Trevithick*** (brakalova@fordham.edu), Mathematics Dept, Fordham University, 441 East Fordham Road, Bronx, NY 10458. *Visual and dynamic experience in math.*

This presentation will focus on how the creation of pictures and animations of some important concepts from Geometry, Calculus, Multivariable Calculus can empower students in their understanding of mathematics. The mathematical tools behind such experiences are parameterized families of curves and surfaces. The presentation will focus on a few examples of animations of tangent and normal lines to 2D/3D curves, osculating planes, tangent planes to surfaces, max/min problems and other problems from 2D and 3D. This kind of practices mobilize and exercise many skills and allow for a quick feedback, not necessarily from the teacher. Visual presentations make a lasting impact on the students and inspire them to learn mathematics. (Received September 18, 2004)