“Geometric Function Theory: Large and Small Coefficient Problems”

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Abstract: I will begin with a brief discussion of the Bieberbach Coefficient Conjecture for univalent functions, which was posed in 1916 and solved in 1985. I will then look at relationships between geometric properties of univalent functions and upper bounds on their power series coefficients. I will then show that sufficient coefficient conditions for univalence are also necessary when the class is restricted to functions with negative coefficients. Finally, I will present open problems for functions with negative coefficients.

Date: March 24, 2010
Time: 2:00 p.m.
Teatime: 1:30 p.m.
Location: 208 Bear Hall