PI Math Club and PME
are pleased to present a talk by

Dr. Peter Dragnev
Chair, IPFW Department of Mathematical Sciences

The title of his talk is

Characterizing Stationary Logarithmic Points on the Sphere

The product of all N(N-1)/2 possible distances for a collection of N points on the circle is maximized when the points are (up to rotation) the N-th roots of unity. There is an elegant elementary proof of this fact. In higher dimensions the problem becomes much more complicated. For example, if the points are restricted to the unit sphere in 3-space, the result is known for N=1-6, and 12 only. Using the tools of multivariate calculus and linear algebra we will derive a characterization theorem for the stationary points in d-space. We illustrate this theorem with a couple of examples of new optimal configurations in the literature.

Wednesday, January 30
at noon
in KT 216

Free pizza and pop following the talk!

Open to all interested students.