IIT GUWAHATI MATHEMATICS SEMINAR SERIES

presents a talk by

Prof. Muthusamy Vanninathan, Professor, Department of Mathematics, IIT Bombay

as part of Weierstrass Day celebrations.

Title of the Talk: Optimal Designs and Consequences

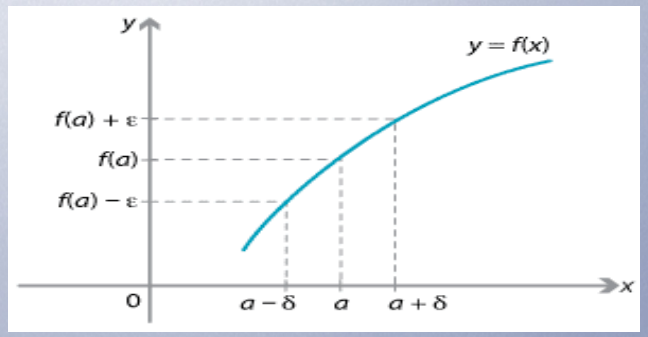
Karl Theodor Wilhelm Weierstrass (31 October 1815 – 19 February 1897) was a German mathematician often cited as the "father of modern analysis".

Weierstrass was interested in the soundness of calculus, and at the time, there were somewhat ambiguous definitions regarding the foundations of calculus, and hence important theorems could not be proven with sufficient rigour. Weierstrass formalized the definition of the continuity of a function, proved the intermediate value theorem and the Bolzano–Weierstrass theorem, and used the latter to study the properties of continuous functions on closed bounded intervals.

Weierstrass devised tests for the convergence of series and contributed to the theory of periodic functions, elliptic functions, Abelian functions, converging infinite products, and the calculus of variations. He also advanced the theory of bilinear and quadratic forms..

Prof. Vanninathan completed his Ph.D. from Pierre et Marie Curie, Paris under the supervision of renowned mathematician J. L. Lions. He was a faculty at TIFR, Bangalore. Currently he is a visiting professor at IITB.

Prof. Vanninathan's research interests lie in the areas of Fluid-Structure Interactions, Partial Differential Equations, Numerical Analysis, Asymptotic Analysis, Homogenization and Control of PDE etc.



Venue: Lecture Hall 4 **Date: 31st October, 2019** **Time: 3:30 PM**