

CALIFORNIA STATE UNIVERSITY, LONG BEACH

THE MATHEMATICS COLLOQUIUM

presents

Dr. Mario Martelli

Claremont-McKenna

speaking on

La Cupola di Santa Maria del Fiore

Friday, April 22, 2005

12:00PM-1:00PM

LA5-165

Abstract: Known as Brunelleschi's cupola, from the name of the Renaissance architect who designed it and supervised its realization from 1420 to 1436, it is regarded as one of the most beautiful and innovative constructions of all times. Brunelleschi's genius invented a method to build the octagonal cupola without centering. Afraid that a competitor would steal his idea, and replace him as the capomaestro of the cupola, Brunelleschi never talked to anyone or wrote anything about his method. He let the posterity struggle with understanding it, but nobody so far has been able to fully penetrate Brunelleschi's secret. There are however some aspects of the construction which may be illustrated today for the first time thanks to the joint efforts of Giuseppe Conti, mathematician and former student of mine at the University of Firenze, Massimo Ricci, architect at the same University, and myself. I will describe in details one of the ideas and explain its decisive role.