Herb Clemens The Ohio State University



Special Algebraic Geometry Seminar

Tuesday, September 18 LCB 225 4:30

The Holomorphic Height Pairing

In joint work with Mirel Caibar we show that the classical height pairing between algebraic (n-1)-cycles on a (2n-1)-dimensional complex projective manifold X is the imaginary part of a natural (multivalued) bi-holomorphic function on components of the Hilbert scheme of X. This pairing is intimately related to the Abel-Jacobi image of the respective cycles. Furthermore this pairing can be extended to integral currents whose support is a real (2n-2)-dimensional oriented submanifold of X.

Refreshments will be served at 4:00 in JWB 228

CSME Lecture

Wednesday, September 19 ASB 210 4:15

Mathematics Teachers as Professionals

The Common Core State Standards for Mathematics (CCSSM) offer an historic opportunity for the improvement of mathematics education in the United States. However the timetable for implementation and assessment currently contemplated is unrealistically short. I will argue that massive professional development for teachers, led by mathematics teacher-leaders and supported by mathematicians and mathematics educators, will be required, as will major reform of university mathematics programs for future teachers of mathematics. With more than a million teachers of mathematics currently employed in the US, this work will take a generation. That said, over the course of that generation CCSSM offers the opportunity to the profession of mathematics teachers to make major gains in professional, social and economic status.