

SANTA BARBARA • SANTA CRUZ

## Geometry, Topology, and Physics Seminar

## Holomorphic-topological gauge theories, sigma-models and duality

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Friday, October 12, 2007, 4:00 p.m. Room 6635 South Hall

**Abstract:** Any finite N=2 fourdimensional gauge theory on a product of two Riemann surfaces  $C_1$  and  $C_2$  can be twisted into a holomorphic-topological theory which depends only on the complex structure on  $C_1$  and is invariant under arbitrary diffeomorphisms of  $C_2$ . This leads to an interesting connection between 4d gauge theories and twisted 2d sigma-models.