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Moduli of instantons and calorons

The moduli spaces of instantons on the four-sphere and of calorons (instantons on the circle times R^3) turn out to be describable in terms of holomorphic maps from the Riemann sphere into a flag manifold of a loop group. These in turn, like for their finite dimensional cousins, admit a poles and principal parts description that allows one to describe the moduli and prove, for example, a topological stability theorem for the moduli.

Joint work with Michael Murray.