

Fourier–Mukai and Nahm
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Moduli space of periodic instantons
(aka calorons)

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Abstract

The moduli space of instantons in pure $SU(n)$ Yang-Mills theory on $R^3 \times S^1$ will be discussed for arbitrary topological charge and non-trivial holonomy (Polyakov loop) at spatial infinity. A correspondence will be established between stable holomorphic bundles on CP^2 subject to certain triviality conditions and the instanton moduli space. Its twistor space will also be described from which the hyperkahler metric should be extractable - at least in principle.