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Bows and quivers: Instantons on ALF Spaces

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Abstract

We present ADHM-Nahm data for generic self-dual Yang-Mills connections on A- and D-type ALF spaces. These take the form of bow diagrams, which generalize quiver diagrams. Bow diagrams provide a convenient description of the moduli space of the self-dual connections. To illustrate the construction we perform the Nahm transform and obtain the explicit generic connection in the following two cases: 1) one instanton on the Taub-NUT space, 2) one “monopole” on the Taub-NUT space.