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**Matej Penciak\***, 706 W Columbia Ave., Champaign, IL 61820. *Spectral Description of the Ruijsenaars-Schneider System*. Preliminary report.

The Calogero-Moser integrable system has a well-known Hitchin description in terms of flows on the space of twisted Higgs bundles on cubic curves. The associated spectral description was spelled out by Tom Nevins and David Ben-Zvi as spectral curves lying in the total space of the Atiyah bundle of the curve. The goal of this talk is to describe a similar Hitchin and spectral description for the Ruijsenaars-Schneider (RS) integrable system. The RS spectral curves can be shown to live on the total space of a degree zero line bundle, with a dual description as associated meromorphic invertible twisted Higgs bundles. (Received August 21, 2018)