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Roberto Fringuelli (roberto.fringuelli@ed.ac.uk) and **Roberto Pirisi*** (roberto.pirisi86@gmail.com). *The Brauer group of the moduli stack of vector bundles on smooth curves (joint w/ R. Fringuelli)*. Preliminary report.

The moduli stack of vector bundles over a fixed algebraic curves has been an important object of research in recent years. There are recent computations (Balaji et al.; Biswas, Holla) of the Brauer group of this stack and generalizations of it.

In a work in progress with R. Fringuelli we globalize these results to the moduli stacks $\mathcal{V}ec_{r,d} \rightarrow \mathcal{M}_g$ parametrizing couples (X, E) where X is a smooth curve of genus g and E is a vector bundle of rank r and degree d on X , and to its rigidification $\mathcal{V}_{r,d} \rightarrow \mathcal{M}_g$.

We show that for $g \geq 4$, in the case of $\mathcal{V}ec_{r,d}$ the cohomological Brauer group is trivial and in the case of $\mathcal{V}_{r,d}$ it is finite cyclic, with the class of $\mathcal{V}ec_{r,d} \rightarrow \mathcal{V}_{r,d}$, seen as a \mathbb{G}_m -gerbe, as a generator. (Received February 01, 2018)