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Darren B Glass*, Dept of Mathematics, Gettysburg College, 300 N. Washington Street, Gettysburg, PA 17325. *The 2-ranks of elementary abelian 2-covers of the projective line*. Preliminary report.

One natural stratification of the moduli space of curves in characteristic p is given by their p -ranks, which can be thought of as the number of p -torsion points that they have. It is an interesting question whether these strata intersect certain subloci transversally. Previous results show that this is the case if one looks at the hyperelliptic locus and $p > 2$. In this talk, we consider the case where $p=2$ and the locus of curves which are $(\mathbb{Z}/2\mathbb{Z})^n$ covers of the projective line. (Received February 17, 2006)