1024-14-222   **Daniel Krashen** and **Max Lieblich*** (`lieblich@math.princeton.edu`), Department of
Mathematics, Princeton University, Fine Hall, Washington Road, Princeton, NJ 08544-1000.
Brauer index reduction via stable twisted sheaves.

Given a genus 1 curve C over a field K, we describe a formula for computing how the index of a Brauer class over K changes when pulled back to C. This appears to be the first such formula for a non-geometrically rational variety. The key input is a famous theorem of Atiyah, which states that any stable vector bundle with integral slope on an elliptic curve is invertible. (Received January 09, 2007)