Meeting: 1003, Atlanta, Georgia, AMS CP 1, AMS Contributed Paper Session

1003-47-770 **Alberto Mokak Teguia*** (`almotek@yahoo.fr`), 119 W Pine St Apt#2, Johnson City, TN 37604, and **Jeff R. Knisley** (`knisleyj@etsu.edu`), Box 70663, Dept. of Math, East Tennessee State University, Johnson City, TN 37614-0663. *A Cayley-Hamilton Theorem for a Class of Elliptic Operators.*

We present an extension of the Cayley-Hamilton Theorem to a class of elliptic operators over a separable Hilbert Space. We use the zeta-function approach to define the characteristic function and derive our main result. Applications of the theorem will include operator inverses and wavelets. (Received September 29, 2004)