1129-37-326 **Moisey Guysinsky*** (mxg30@psu.edu), 109 McAllister Bld, University Park, PA 16802. *Splitting of of the Mather-Sacker-Sell spectrum over hyperbolic systems with Lyapunov exponents almost constant at periodic points.* Preliminary report.

Let X be a compact metric space and TX a vector bundle over X, $\Gamma(TX)$ a Banach space of continuos vector fields. If $f : X \to X$ is a homeomorphism and $A(x) : T_x \to T_{f(x)}$ is a continuos family of linear maps we can define an operator $B : \Gamma(TX) \to \Gamma(TX)$ as $B(v)(x) = A_{f^{-1}(x)}(v(f^{-1}(x)))$. The spectrum of the complexification of this operator was first studied by J.Mather in the case when X is a manifold, f is differentiable and $A(x) = Df(x)$. In the general case this spectrum was studied by R.Sacker and G.Sell. Under a mild condition the spectrum consists from several disjoint rings and the splitting of the spectrum of this operator implies splitting of $\Gamma(TX)$ in invariant subbundels. We show that if $f, A(x)$ are Hölder continuous, f is hyperbolic, then closeness of Lyapunov exponents to constants at periodic points implies splitting of the spectrum. This result has several applications (Received March 19, 2017)