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David Aulicino* (aulicino@math.uchicago.edu), Department of Mathematics, University of Chicago, 5734 University Avenue, Chicago, IL 60637. *Affine Invariant Submanifolds with Completely Degenerate Kontsevich-Zorich Spectrum*. Preliminary report.

I will introduce the Lyapunov exponents of the Teichmueller geodesic flow on the moduli space of Abelian differentials and give some background on what is known about them. Then I will consider the problem of classifying all affine invariant submanifolds with the property that they have the maximal number of zero Lyapunov exponents with respect to the Kontsevich-Zorich cocycle. I will prove that any such submanifold is an arithmetic Teichmueller curve. By a result of Martin Moeller, it must occur in genus 3, 4, or 5. (Received February 14, 2013)