Meeting: 1001, Evanston, Illinois, SS 12A, Special Session on Iterated Function Systems and Analysis on Fractals

1001-37-19 **Yakov Pesin** (pesin@math.psu.edu), McAllister Building, State College, PA 16802, and **Anna Mummert*** (anna@math.psu.edu), McAllister Building, State College, PA 16802. *A Non-Additive Thermodynamic Formalism.* Preliminary report.

Recently, Feng and Lau have established a thermodynamic formalism for a certain sequence of functions on a subshift of finite type. In particular, they have demonstrated a well-defined pressure function, a variational principle, and the existence and uniqueness of equilibrium measures. The sequence that they studied is an example of an almost-additive sequence. We establish a thermodynamic formalism for all such sequences on an arbitrary compact metric space. Our definitions coincide with those of Feng and Lau when the space is a subshift of finite type. We also show that the sequences studied by Barreira form a proper subclass of the almost-additive sequences. (Received June 11, 2004)