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**Santiago R Simanca** and **Christina Wiis Tønnesen-Friedman\*** (tonnesec@union.edu),  
Dept. of Math., Bailey Hall, Union College, Schenectady, NY 12308. *The energy of a Kähler class  
on admissible bundles*. Preliminary report.

For each Kähler class on a compact Kähler manifold we define the *energy* to be the lower bound of the Calabi functional. Fixing the volume and letting the Kähler classes vary, the energy defines a functional which may be studied in its own right. Any critical point of the energy functional is then a Kähler class whose extremal Kähler metrics (if any) are so-called strongly extremal metrics.

We take the well-studied case of Hirzebruch surfaces and generalize it in two different directions; along the dimension of the base and along the genus of the base. In the latter situation we are able to give a very concrete description of the corresponding dynamical system (as defined first by S. Simanca and L. Stelling). (Received August 13, 2007)