1014-05-1496 **Alex Eustis*** (aeustis@hmc.edu), 340 E. Foothill Blvd, Claremont, CA 91711, and **Arthur T. Benjamin** (benjamin@hmc.edu), 1250 N. Dartmouth Avenue, Claremont, CA 91711. *The Negs and Regs of Continued Fractions.* Preliminary report.

Typically, a continued fraction is written in "regular" form

$$a_0 + \cfrac{1}{a_1 + \cfrac{1}{a_2 + \cfrac{1}{\ddots + \frac{1}{a_n}}}},$$

but there are advantages to replacing the "1"s with "-1"s in the above expression. There are many beautiful connections between a number's "negative" continued fractions and its regular one, and we present an original combinatorial interpretation that explains these relationships and leads to generalizations where the "1"s can be replaced by arbitrary numbers. (Received September 28, 2005)