

Thursday, January 22, 2009  
3:00–3:50 p.m.  
Harrelson 330

# The *abc* Conjecture

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It is often the case in number theory, that a reasonable question is very easy to ask yet extremely difficult or even impossible to answer. The most famous example, of course, is Fermat's Last Theorem, the proof of which eluded mathematicians for more than 300 years.

In recent years a problem has arisen for which the search for a proof might turn out to be as turbulent as Fermat's Last Theorem. The *abc* conjecture was formulated in 1985 by J. Oesterle and D. Masser. It is very easy to state, yet nonetheless has far-reaching implications throughout number theory; and it is probable that if a proof is found, it too will have deep consequences beyond the conjecture itself.

In mathematics it is often possible to translate a problem from one area to another, in the hope that the resulting question is easier to tackle and offers insight for the original. We will discuss first the *abc* conjecture for polynomials, then we will see how this theorem can be translated into the *abc* conjecture about ordinary integers.

NCSU Society for Undergraduate Mathematics

## SUM Series

Mathematics and pizza!