1086-11-1703 **James M Borger*** (`james.borger@anu.edu.au`), Mathematical Sciences Institute, Building 27, Australian National University, Canberra, ACT 0200, Australia. *Witt vectors, lambda-rings, and absolute algebraic geometry.*

The analogy between number fields and function fields over finite fields has led to many advances in both subjects. Highlights include results in class field theory, on the zeros of zeta-functions, and on automorphic forms. But there is one basic way in which the two subjects differ: function fields have subfields of "constants", but number fields don't. This has been a barrier to fully importing ideas from the theory of function fields to that of number fields. In this talk, I'll explain how Witt vectors and lambda-rings, two somewhat exotic concepts in algebra, can be used to get around this barrier to some extent. (Received September 24, 2012)