1124-13-380   **Robert Krone*** (`rk71@queensu.ca`), Department of Math & Stats, Jeffery Hall, University Ave., Kingston, Ontario K7L 3N6, Canada, and **Anton Leykin** and **Andrew Snowden**. *Hilbert series of infinite symmetric ideals.*

An infinite symmetric ideal I encodes a sequence of ideals indexed by a natural number n, each closed under an action of the nth symmetric group, with compatible maps between them. Nagel and Römer recently defined a Hilbert series of such a family and proved that it is rational. Using tools from the theory of formal languages we offer an easier proof and a simple algorithm that computes the series. (Received September 13, 2016)