Hjalmar Rosengren* (hjalmar@chalmers.se), Mathematical Sciences, Chalmers University of Technology, 43896 Gothenburg, Sweden. On the Kanade-Russell identities.

Kanade and Russell conjectured several Rogers–Ramanujan-type identities for triple series. Some of these conjectures are related to characters of affine Lie algebras, and they can all be interpreted combinatorially in terms of partitions. Many of the conjectures were settled by Bringmann, Jennings-Shaffer and Mahlburg. We describe a new approach to the Kanade–Russell identities, which leads both to new proofs of previously known identities and to conjectures that were still open. The new cases are based on quadratic transformations for Askey–Wilson polynomials. (Received September 14, 2020)