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Chadwick Gugg\* (cgugg@canes.gsw.edu), Georgia Southwestern State University, Department of Mathematics, 800 GSW State University Drive, Americus, GA 31709. *Modular identities involving powers of the Rogers-Ramanujan functions.* 

In his Notebooks, Ramanujan recorded 40 elegant identities for the Rogers-Ramanujan functions. Of these, precisely one involves powers of the Rogers-Ramanujan functions. Ramanujan added the enigmatic note that "Each of these formulae is the simplest of a large class." This suggests that there are further relations involving powers of the Rogers-Ramanujan functions. Ramanujan functions. In this talk, we provide examples of identities involving powers of the Rogers-Ramanujan functions. Connections are made to continued fractions, partitions, and analogues of the Rogers-Ramanujan functions. (Received September 22, 2010)