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Shaun Cooper and **Dongxi Ye*** (lawrencefrommath@gmail.com), Department of Mathematics, University of Wisconsin, 480 Lincoln Drive, Madison, WI 53706. *The Rogers-Ramanujan continued fraction and its level 13 analogue.*

One of the properties of the Rogers-Ramanujan continued fraction is its representation as an infinite product given by

$$r(q) = q^{1/5} \prod_{j=1}^{\infty} (1 - q^j)^{\binom{j}{5}}$$

where $\binom{j}{p}$ is the Legendre symbol. In this work we study the level 13 function

$$R(q) = q \prod_{j=1}^{\infty} (1 - q^j)^{\binom{j}{13}}$$

and establish many properties analogous to those for the fifth power of the Rogers-Ramanujan continued fraction. (Received August 20, 2014)