A baric algebra is a pair \((A, \omega)\) where \(A\) is a commutative algebra over a field \(K\) and \(\omega: A \to K\) is a nonzero homomorphism. In a previous paper [J. Algebra 261 (2003), no. 1, 1–18; MR1967153 (2004a:17038)] the authors and R. Benavides introduced the concept of gametization of a baric algebra. The gametization of \(A\) by \(\gamma (\gamma \in K, \gamma \neq 1)\) is the algebra \(A_\gamma\) with multiplication defined by

\[(xy)_\gamma = (1-\gamma)xy + \frac{1}{2}\gamma(\omega(x)y + \omega(y)x).\]

In this paper the authors use gametization to give shorter proofs for known results on some algebras satisfying polynomial identities. They also consider the backcrossing algebra, i.e., the algebra verifying the identity \((x^2)^2 = 2x^3 - x^2\), and obtain a characterization of this algebra in terms of the Peirce decomposition. 

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