

**A generalization of Tóth identity involving
a Dirichlet character in $\mathbb{F}_q[T]$**

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Abstract. Let $\mathbb{A} = \mathbb{F}_q[T]$ be the polynomial ring over the finite field \mathbb{F}_q . In this article, we prove a generalization of Tóth identity to \mathbb{A} involving arithmetical functions, multiplicative and additive characters.

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