

Given complex numbers q and ω , the Hahn's operator $D_{q,\omega}$ is defined by

$$D_{q,\omega}f(x) := \frac{f(qx + \omega) - f(x)}{(q-1)x + \omega},$$

where f is a given function. For this operator, a large variety of properties, in different contexts, are well known.

Recently, a general q-antic operator D_β , defined by

$$D_\beta f(x) := \frac{f(\beta x) - f(x)}{\beta x - x},$$

was introduced, generalizing the Hahn's operator.

The idea is to try to obtain similar results for this general operator.