

## REVISITING THE FOURIER TRANSFORM ON THE HEISENBERG GROUP

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**Abstract:** A recent theorem of S. Alesker, S. Artstein-Avidan and V. Milman characterises the Fourier transform on  $\mathbb{R}^n$  as essentially the only transform on the space of tempered distributions which interchanges convolutions and pointwise products. In this note we study the image of the Schwartz space on the Heisenberg group under the Fourier transform and obtain a similar characterisation for the Fourier transform on the Heisenberg group.

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