

# ON THE CONE MULTIPLIER IN $\mathbb{R}^3$

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## Abstract

We prove the sharp  $L^3$  bounds for the cone multiplier in  $\mathbb{R}^3$  and the associated square function, which is known as Mockenhaupt's square function. The results are obtained by an adaptation of recent Bourgain-Guth argument for restriction estimates which relies on the multilinear restriction theorem due to Bennett-Carbery-Tao. This is a joint work with Ana Vargas.