

## Bounded Exponential Sums with Multiplicative Coefficients

Fred Tyrrell

University of Bristol

For a multiplicative function  $f$  and  $\alpha \in \mathbb{R}$ , we study when the sum  $\sum_{n \leq x} f(n) e^{2\pi i n \alpha}$  can be bounded. I will motivate the study of such sums and state our main classification results. If time allows, I will also talk briefly about a few of the key ideas involved. This is based on joint work with Ihor Pylaiev.