

## Correlation with strictly ergodic sequences

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A symbolic sequence is called *strictly ergodic* if so is its shift orbit closure. Two symbolic sequences  $x = (x_n), y = (y_n)$  (over an alphabet consisting of complex numbers) are *uncorrelated* if the averages  $\frac{1}{n} \sum_{i=1}^n x_i \overline{y_i}$  tend to zero. We are interested in determining which sequences are correlated to at least one strictly ergodic sequence. The family includes all sequences that are generic for ergodic measures (this follows easily from a theorem of Benji Weiss [1, Theorem 4.4]), but not only such. In fact, we believe that the sequences that do not have that property, is quite exceptional. The motivation for this study is the question whether the Möbius function is among the exceptional sequences, posed (most likely) by M. Boshernitzan.

### References

- [1] B. Weiss, *Single Orbit Dynamics*, CBMS Regional Conference Series in Mathematics, 95., American Mathematical Society, Providence, RI, 2000.