

Affine subshifts of subnormal weighted shifts

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Given a weighted shift with weights $\alpha = (\alpha_n)_{n=0}^\infty$, and a strictly increasing map g on the non-negative integers, the associated subshift is that with weights $(\alpha_{g(n)})_{n=0}^\infty$; the subshift is affine if g has the form $g(n) = mn + k$ where m is a positive integer and k is a non-negative integer. We consider when an affine subshift of a subnormal shift is subnormal (or in some related class of interest), provide some examples to indicate the range of possibilities, and prove that any affine subshift of a moment infinitely divisible (MID) shift is again MID (hence subnormal). We consider as well when a subnormal shift is a (non-trivial) affine subshift of a (nother) subnormal weighted shift, obtaining a positive answer when the moments of the original shift are interpolated by a Bernstein or log Bernstein function. (Joint work with Chafiq Benhida, Université des Sciences et Technologies de Lille, France and Raúl E. Curto, University of Iowa, USA.)

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