

**SOME RESULTS ABOUT SAMPLING AND  
INTERPOLATING SEQUENCES IN  
DE BRANGES' SPACES**

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A. Baranov found an example of a de Branges space where separation of a sequence does not imply the Bessel inequality. In a recent work Y. Belov, T. Mengestie and K. Seip show also that the Bessel inequality does not imply separation. In these two cases the de Branges' spaces they consider are such that the derivative of the phase function,  $\phi'$ , is "fast decreasing". On the other hand, Y. Lyubarskii and K. Seip proved that when  $\phi' \sim 1$  the space behaves like the standard Paley-Wiener. We consider de Branges' spaces such that the phase function defines a doubling measure. This case includes therefore the case  $\phi' \sim 1$  but allows also for some decreasing. Under this condition we prove density results about sampling and interpolation.

This is a joint work with S. Nitzan (NTNU) and J.-F. Olsen (Lund).