Fourier-like systems are formed by multiplying a class of exponentials with a set of window functions. Via the Fourier transform they are equivalent to shift-invariant systems. We present sufficient and easily verifiable conditions for such systems to form a frame with a dual frame having the same structure. An attractive class of frames is formed by letting the window functions be trigonometric polynomials, restricted to compact intervals. We prove, under weak conditions, that such systems generate a frame with a dual that is also generated by a trigonometric polynomial. For polynomial windows, a result of this type does not hold. Throughout the paper the results are related to the well established theory for Gabor systems.

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