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(jeff.hogan@newcastle.edu.au). *Recent Advances in Duration and Bandwidth  
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That the prolate spheroidal wave functions are eigenfunctions of an operator that first limits a function to a finite time interval then bandlimits the resulting function was observed by Slepian and Pollak in 1960. Since 2000 much progress has been made involving numerical analysis using the prolates. Here we will focus on some new results in frame theory. Specifically, certain normalizations of shifted prolates form tight frames for the Paley-Wiener space. A corresponding result applies to what we call bandpass prolates. These are eigenfunctions of time limiting then bandpass limiting. Methods to perform numerical computations with bandpass prolates will be discussed and applications will be outlined. (Received September 23, 2015)