1145-68-1878    **Don Stull\*** (`dstull@inria.fr`). *The effective dimension of points on lines.*

In this talk, we will review recent advances on the dimension spectra of planar lines. The dimension spectrum of a line $L_{a,b}$ with slope $a$ and intercept $b$ is the set $\mathrm{sp}(L_{a,b})$ of all effective dimensions of the points $(x, ax + b)$ on $L_{a,b}$. This talk will focus on the conjecture of N. Lutz that, for every line $L_{a,b}$, $\mathrm{sp}(L_{a,b})$ contains a unit interval. We will discuss recent work settling this conjecture for certain classes of lines. This talk will also highlight the connections between the (effective) dimension spectra of lines, and well known conjectures in fractal geometry. (Received September 24, 2018)