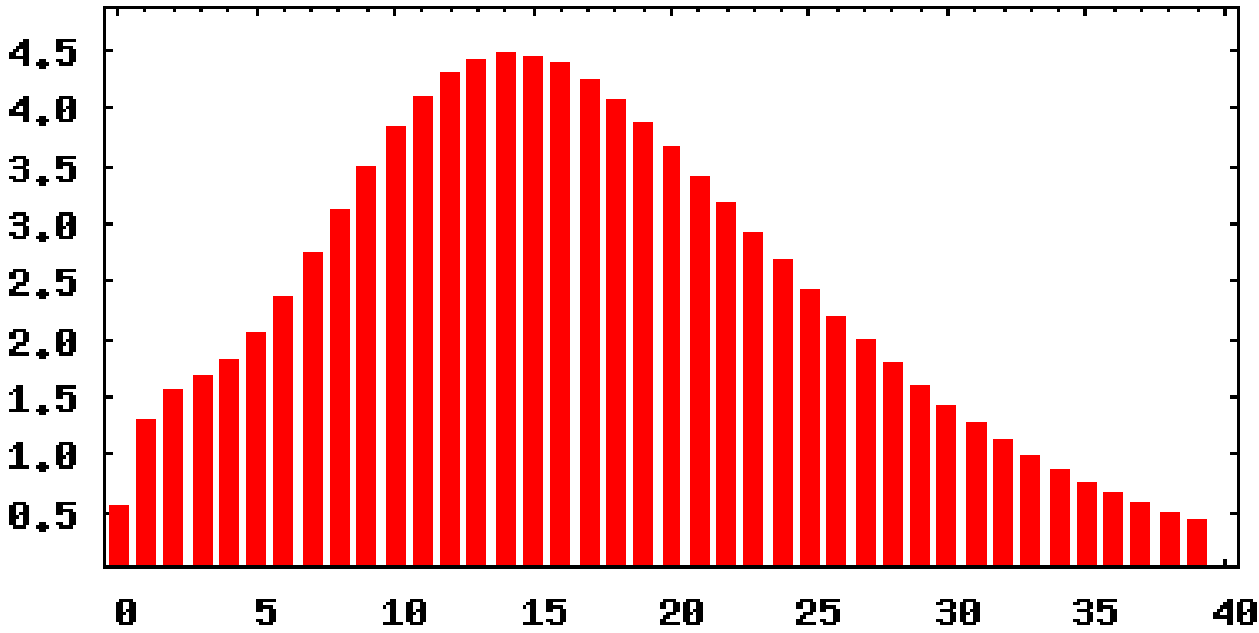


8.10 Laguerre Filter

<http://www.mesasoftware.com/technicalpapers.htm>
<http://www.mesasoftware.com/Papers/TIME%20WARP.pdf>

The Laguerre Filter by John Elhers is a smoothing filter based on Laguerre polynomials. Its first term is an EMA (see [Exponential Moving Average](#)), followed by certain feedback terms. The smoothing is controlled by an alpha factor which is the alpha for the EMA and also damps the further terms. Alpha can range from 1 to follow prices almost exactly, down to 0 for a very slow response.

The result is still a weighted average of past prices. The weights for example for the default $\alpha=0.2$ are as follows.



8.11 Adaptive Laguerre Filter

The adaptive laguerre filter is a variation on the laguerre filter using a variable alpha factor which is based on how well the filter is tracking a past N days prices. The effect is to follow sustained moves quite closely, but to change little when prices chop back and forwards in a range.

The raw alpha values can be viewed as “Adaptive Laguerre Alpha” in the lower indicator window, under “Low Priority” near the end of the indicator lists. High values mean closely tracking prices, low values mean only slow response.