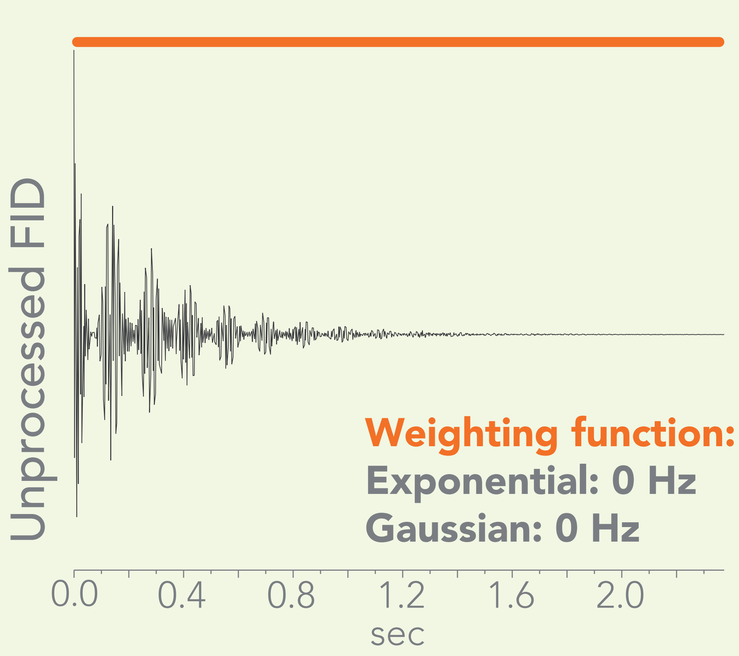
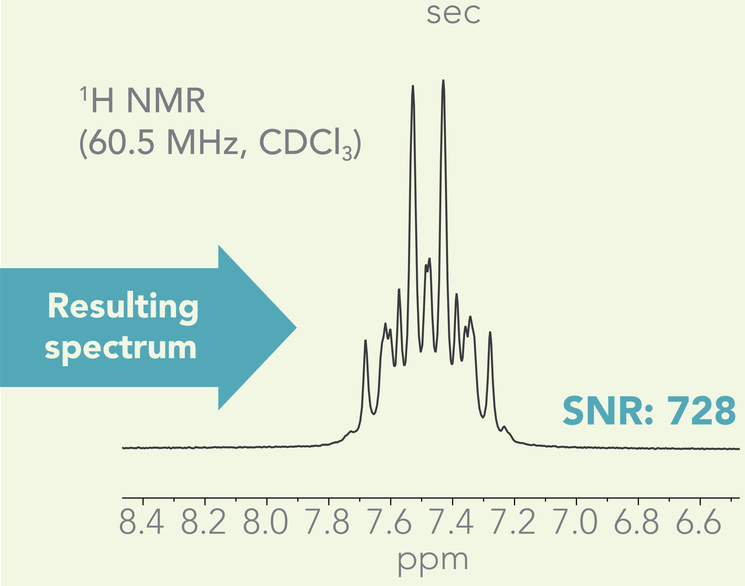
nanalysis™

APODIZATION

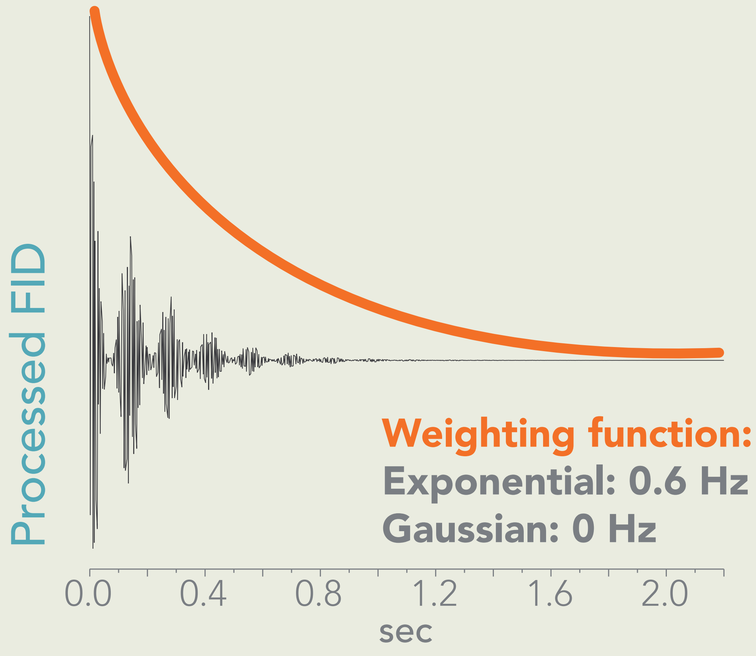
A signal processing tool to optimize resolution and signal-to-noise ratio (SNR)

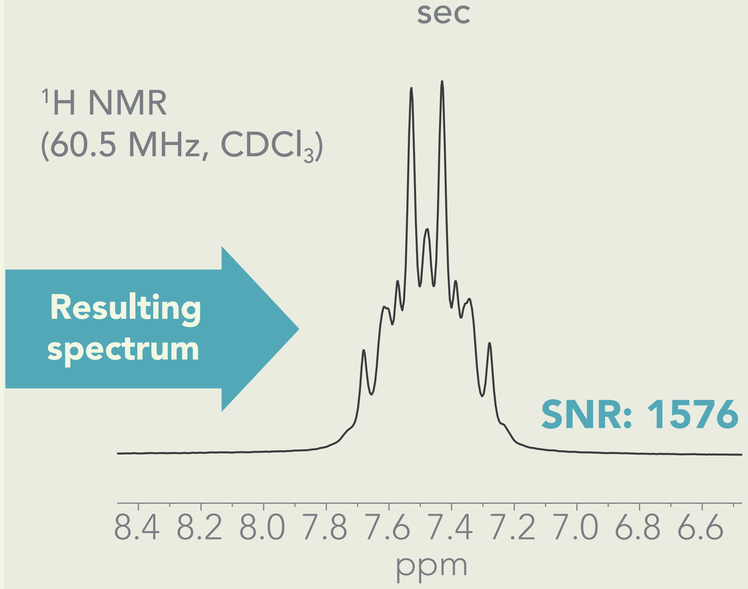
No apodization applied



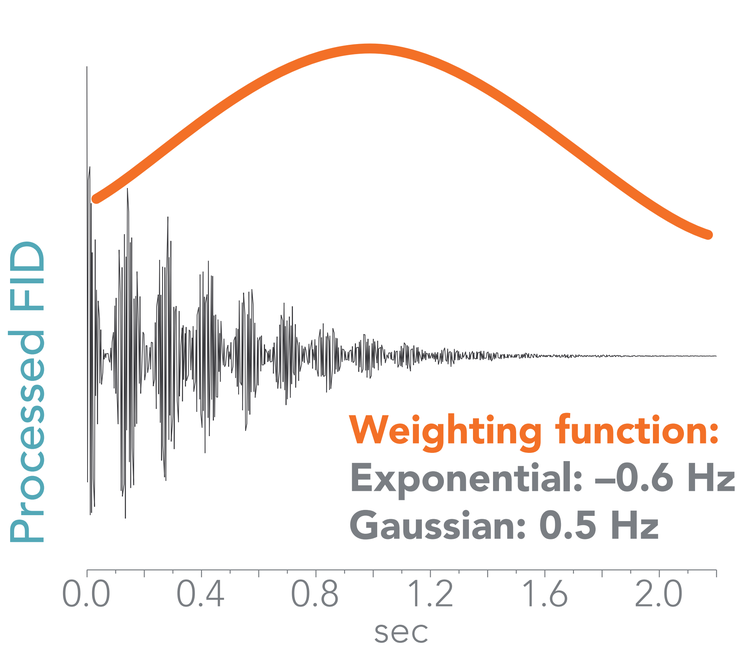


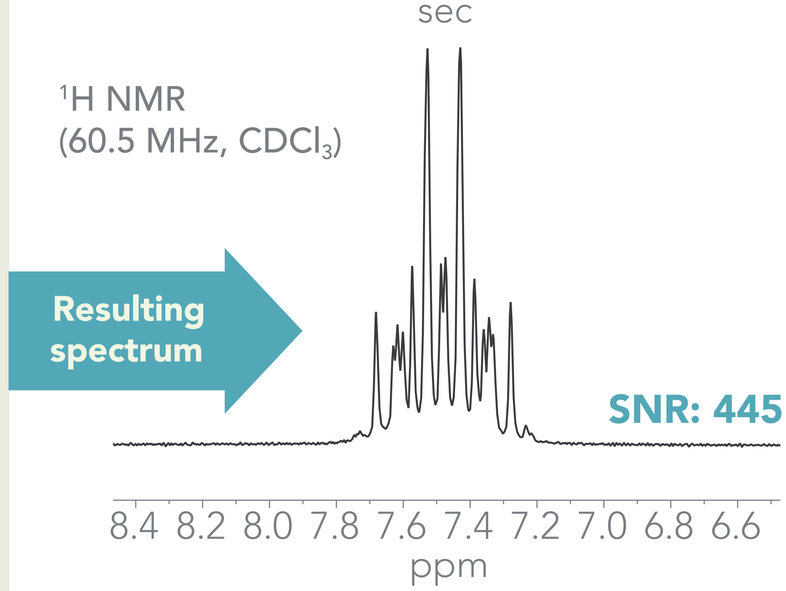
Exponential line broadening





Lorentz-to-Gauss transformation





★ A **positive** exponential weighting function **increases** SNR at the **expense** of **resolution** and vice versa for the negative weighting.

★ A **negative** exponential and **positive** gaussian weighting function (Lorentz-to-Gauss transformation) is optimal for balancing between **resolution and SNR.**

The figures in this document were created using Mestrelab Mnova v14.3.1

Read more about apodization here: https://www.nanalysis.com/nmready-blog/2018/5/31/to-apodize-or-not-to-apodize-the-age-old-question