Melvin L Bowers III, Department of CME, Shepherd University, Shepherdstown, WV 25443, and Uday Shankar Shanthamallu, School of Engineering, Arizona State University, Tempe, AZ 85281, and Michael Goryll, School of Engineering, Arizona State University, Tempe, AZ 85281, and Dr. Andreas Spanias, School of Engineering, Arizona State University, Tempe, AZ 85281. Nanopore Sensors and Signal Processing

With the help of Ion Channels as well as filtering and, signal processing DNA sequencing can become a more efficient process. To see wavelet filtering would be the best for ion channels we imported ion channel data into Qub. Then used MATLAB to show graphically what the signal looked like. We then utilized MATLAB's toolbox of wavelets to see which wavelet could denoise the noisy ion channel signal, the best. We were able to objectively show the improvement of the signal utilizing specific wavelets to help with the white noise. The maximum observed increase in SNR was 5.42.