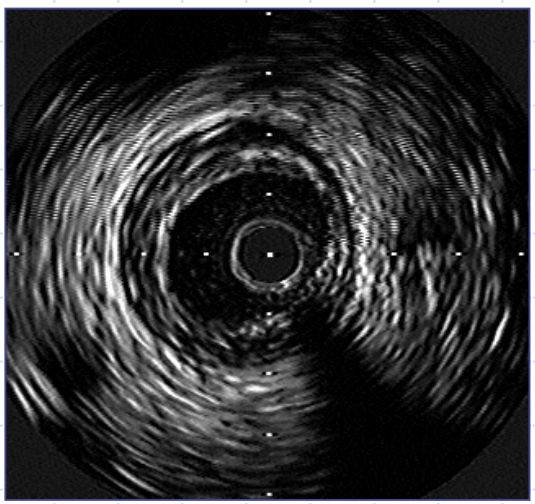
# High Frequency Nonlinear Acoustic Intravascular Imaging

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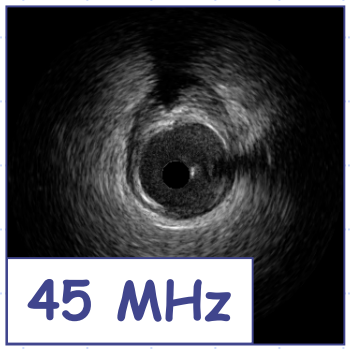
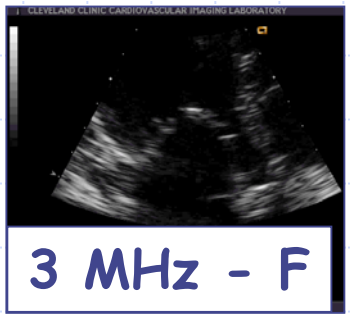
*R01-HL069094*

# Areas of Investigation

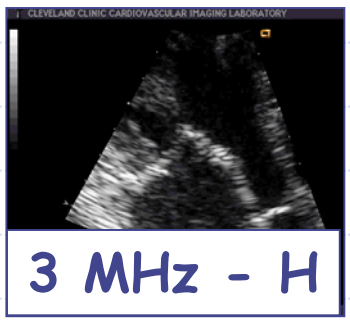
$$\frac{\partial^2 p}{\partial z \partial \tau} = \frac{c_0}{2}\nabla_\perp^2 p + \frac{\delta}{2c_0^2}\frac{\partial^3 p}{\partial \tau^3} + \frac{\beta}{2\rho_0 c_0^3}\frac{\partial^2 p^2}{\partial \tau^2}$$



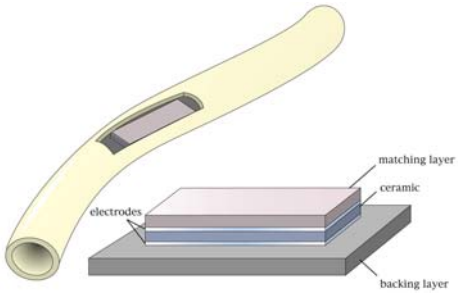
45 MHz

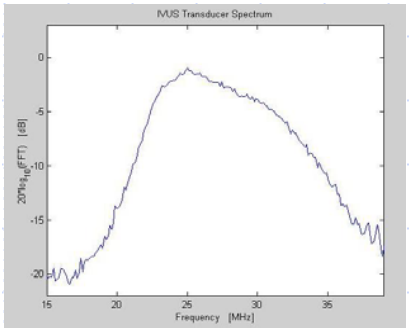



3 MHz - F

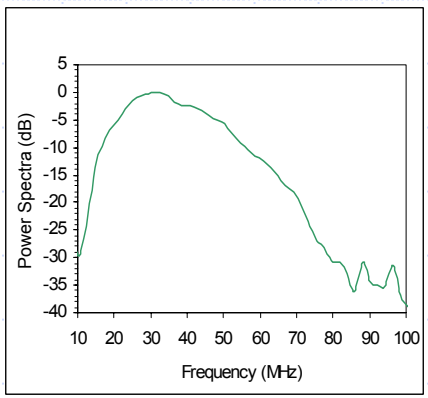



3 MHz - H

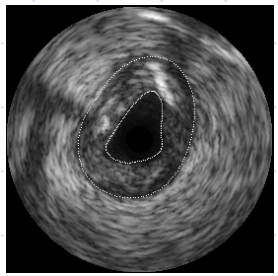




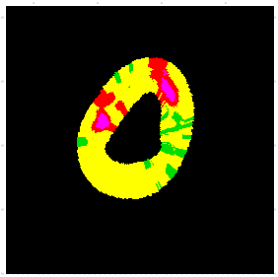

30%



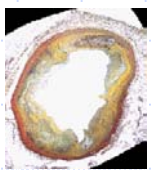

100%



IVUS



Prediction



Actual