Raw FLIM Data

VF Lifetime

Fit fluorescence lifetime
Calculated weighted average, τ_m
Overlay τ_m heatmap on intensity

$$F(t) = a_1 e^{-t/\tau_1} + a_2 e^{-t/\tau_2}$$

$$\tau_m = \frac{a_1\tau_1 + a_2\tau_2}{a_1 + a_2}$$

Optically Determined V_{mem}

Average τ_m across ROI
Convert to voltage

$$V_{mem} = (\tau_m - b)/m$$

1) 1.720 ns = -14 mV
2) 1.658 ns = -32 mV