Calculation of the relative root mean square (RRMS) error in JSim:

RRMS error = RMS error /  $\sigma_{\rm w}$ 

- Where RMS error is the root mean square error of the model fit to data (See <a href="http://www.physiome.org/jsim/docs/User\_Optim.html#stop">http://www.physiome.org/jsim/docs/User\_Optim.html#stop</a> for more information),
- The weighted mean =  $\mu = \frac{\sum w_i * y_i}{\sum w_i}$ , the sum from 1 to N where N is # of data points,  $y_i$  is data point and  $w_i$  is weight associated with  $y_i$ .
- And the point weighted sample standard deviation:

$$\sigma_{w} = \sqrt{\frac{\sum_{i} w_{i} * (y_{i} - \mu)^{2}}{\frac{(N-1) * \sum_{i} w_{i}}{N}}}$$