

DEER analysis report on dataset DEER_71_235_MTSL_EMCV_d2_6us_30scs _spec

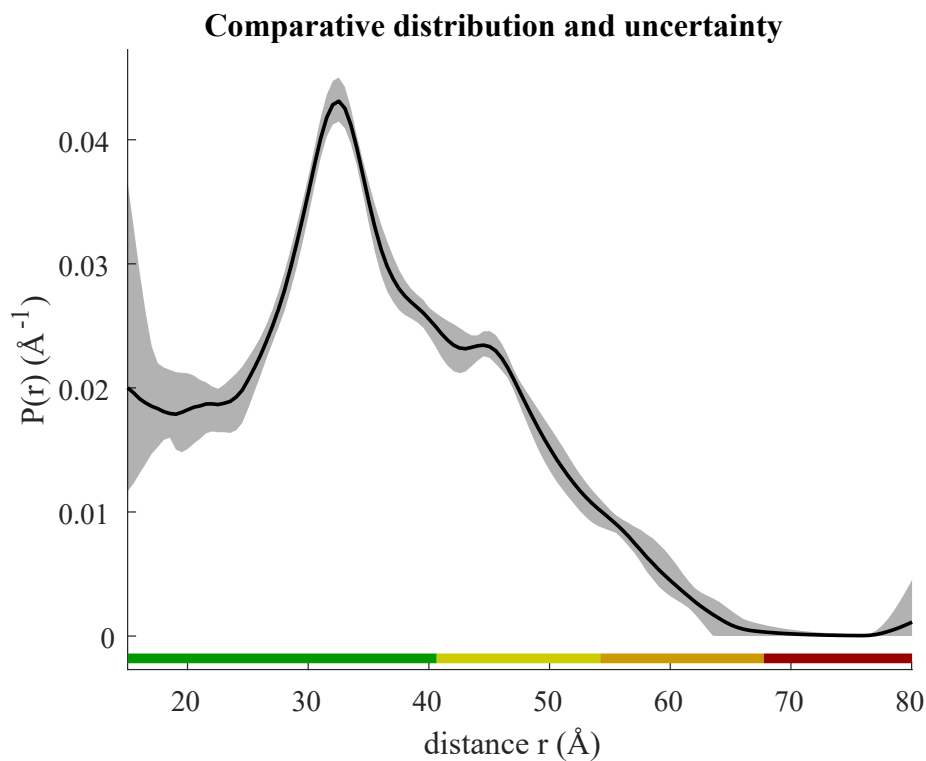
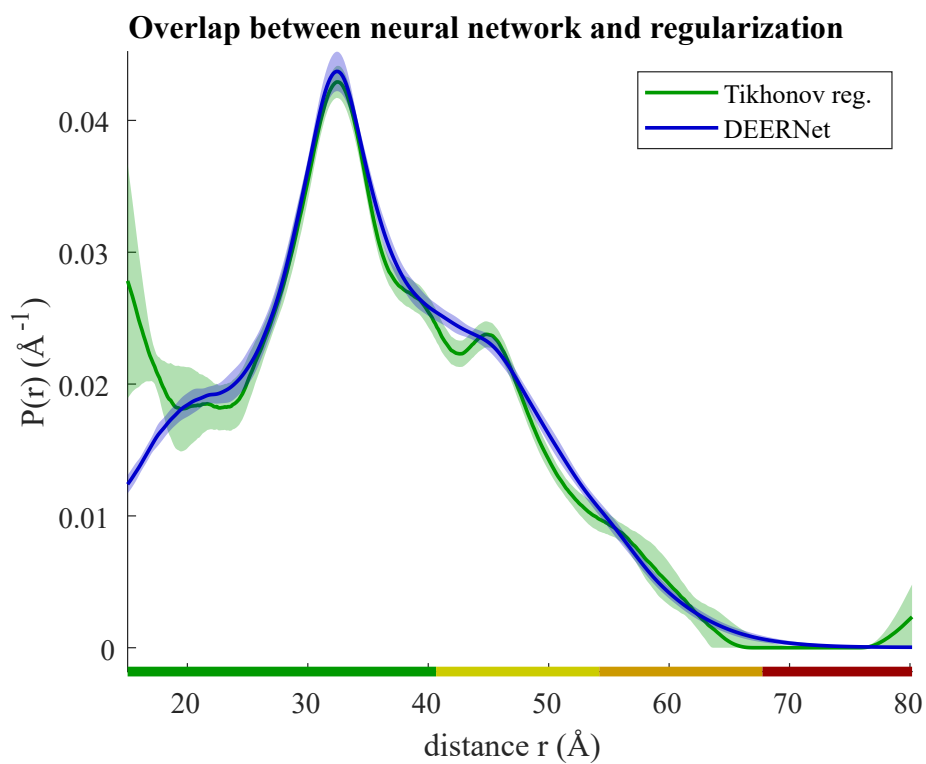
**DEERNet Spinach SVN Rev 5662 and DeerLab
0.9.1 Tikhonov regularization**

ComparativeDEERAnalyzer version 2.0

see: S. G. Worswick et al., DOI: 10.1126/sciadv.aat5218, L. Fabregas Ibanez et al., DOI: 10.5194/
mr-1-209-2020

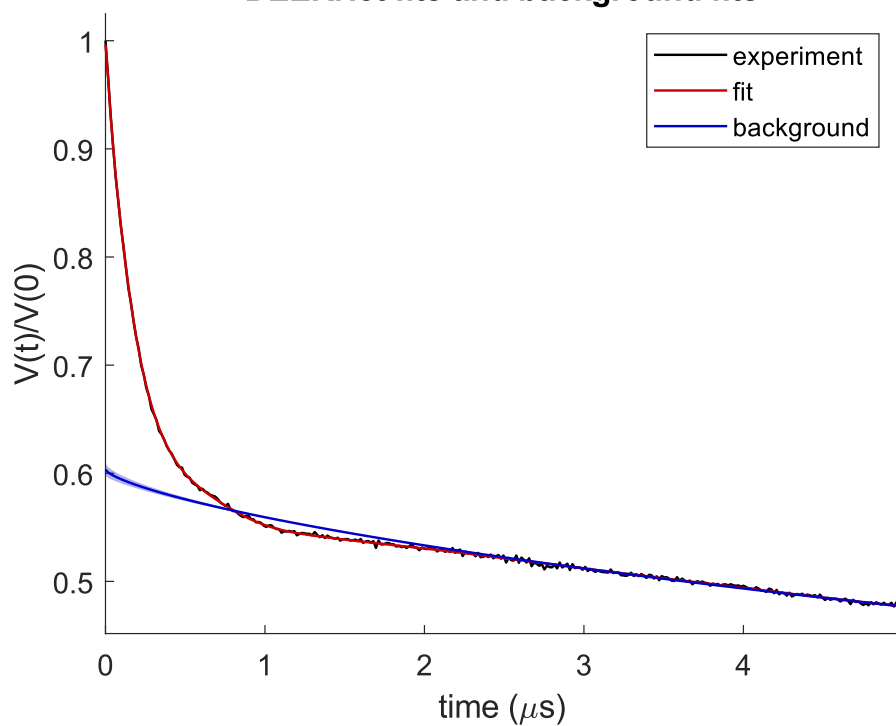
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1. Distance distributions

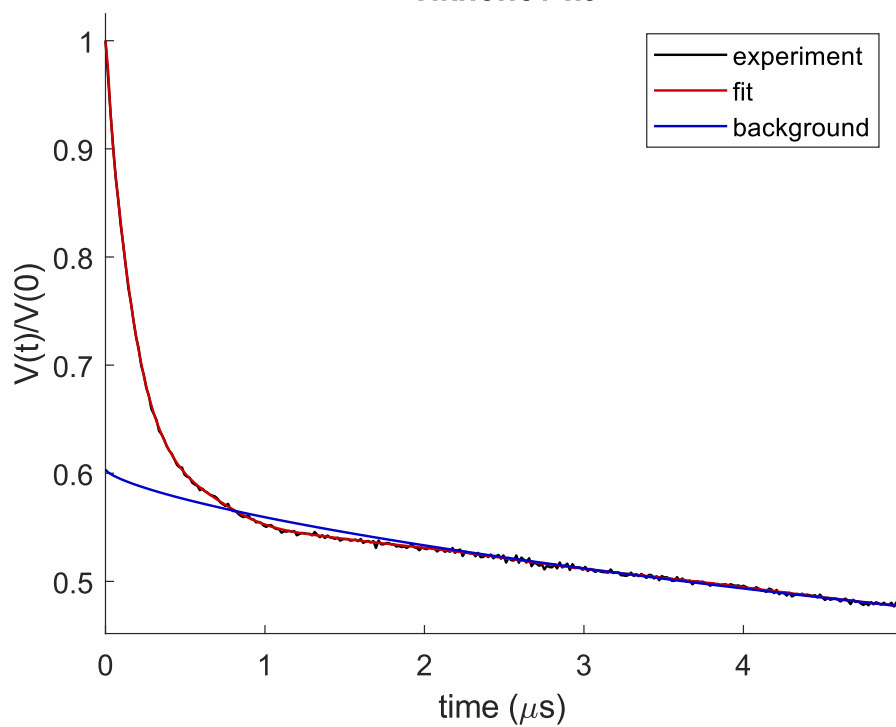


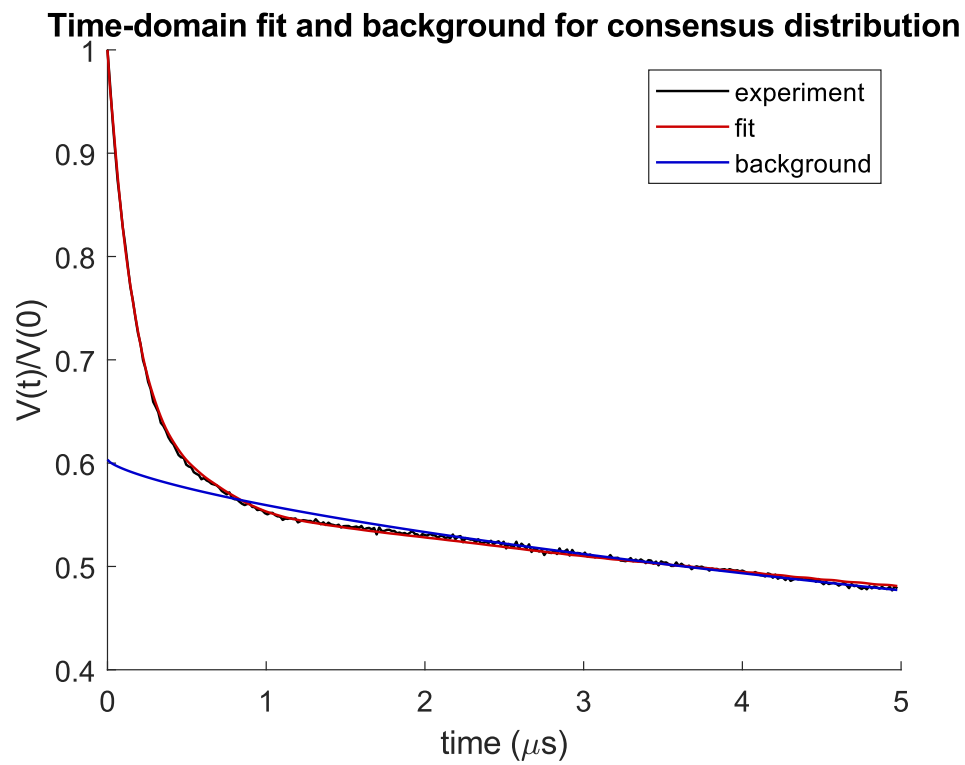
2. Fits of time-domain data

DEERNet fits and background fits



Tikhonov fit





3. Experimental and processing parameters

Modulation depth: 0.394

Signal-to-noise ratio: 257.8 (w.r.t. modulation)

Noise estimates normalized to maximum signal

From imaginary part: 0.00281

From DEERNet fit: 0.00153

From Tikhonov fit: 0.00250

Zero time: 124 ns

Maximum time: 4976 ns

The last 12 % of the data was cut off

Time increment: 16 ns

Phase: -10.9 degree

Ensemble of 32 neural networks

Background separation by neural network

Background dimension: 3

Regularization parameter by best overlap with neural network solution

Regularization parameter used: 1.25

Reg. par. initial estimate by L-curve corner: 19.95

Overlap between DEERNet and regularization solutions: 0.962

Predicted overlap of consensus solution with ground truth: 0.83...1.00

Mean distance: 34.4 Å

Distance standard deviation: 11.8 Å

Full data set in Matlab format:

G:\projects\Christoph_Gmeiner\modelling\master_shot\Deer\DEER_71_235_MTS�_EMCV_d
2_6us_30scs_spec_comparative_DEER_analysis.mat

Distance distributions in text format:

G:\projects\Christoph_Gmeiner\modelling\master_shot\Deer\DEER_71_235_MTS�_EMCV_d
2_6us_30scs_spec_consensus_DEER_distribution.csv

3. Experimental and processing parameters

Fit and background in text format:

G:\projects\Christoph_Gmeiner\modelling\master_shot\Deer\DEER_71_235_MTSL_EMCV_d
2_6us_30scs_spec_consensus_DEER_fit.csv

Metadata:

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2_6us_30scs_spec_comparative_DEER_meta_data.csv