FSL MRS Report

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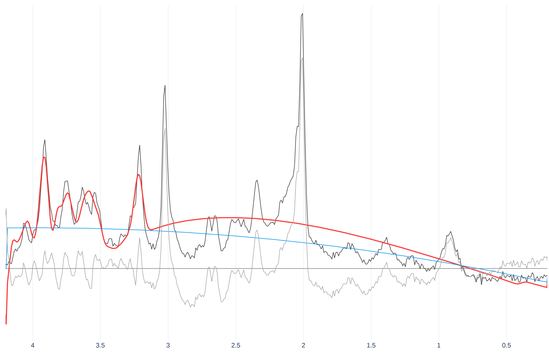
Date       : 2024-12-03 03:32
FID        : /Users/nyuad/Desktop/Data/fsl_mrs_proc/metab.nii.gz
Basis      : /Users/nyuad/Desktop/Data/basis
H2O        : None
```

Summary - Nuisance - QC - Uncertainty - Basis Spectra - Metabs - Quantification - Methods -

Summary

Metab	unscaled	CRLB	%CRLB	/Cr+PCr
2HG	0	0.328	999	null
Ala	0	0.046	999	null
Asc	0.23	0.252	109.2	null
Asp	0.39	0.169	43.5	null
Cr	0	1.871	999	null
GABA	0.16	0.328	205.3	null
GPC	0	0.032	999	null
GSH	0.35	0.198	56.6	null
Glc	0	0.132	999	null
Gln	0	0.14	999	null
Glu	0.02	0.146	600	null
Lac	0.16	0.09	57.5	null
NAA	0.05	0.061	124.6	null
NAAG	0	0.077	999	null
PCr	0	1.848	999	null
PE	0.07	0.453	605.9	null
Tau	0.15	0.129	87.4	null
mI	0.17	0.086	49.5	null
Cr+PCr	0	0.09	999	null



Nuisance parameters

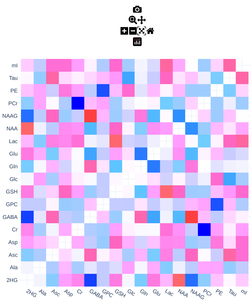
Metab group	linewidth (Hz)	shift (ppm)
2HG, Ala, Asc, Asp, Cr, GABA, GPC, GSH, Glc, Gln, Glu, Lac, NAA, NAAG, PCr, PE, Tau, mI	17.30707	0.052

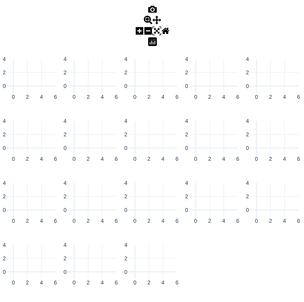
Static phase (deg)	Linear phase (deg/ppm)	Linear phase (ms)	Linear phase (pmts)
-128.56917	76.2891	0.713	8.56

QC parameters

Metab	SNR	FWHM (Hz)
2HG	0.0	0.0
Ala	0.0	0.0
Asc	17.7	0.0
Asp	17.1	35.9
Cr	0.0	0.0
GABA	10.2	30.2
GPC	0.0	0.0
GSH	25.9	23.2
Glc	0.0	0.0
Gln	0.0	0.0
Glu	2.3	33.7
Lac	21.8	23.2
NAA	8.9	18.1
NAAG	0.0	0.0
PCr	0.0	0.0
PE	2.7	23.8
Tau	16.6	29.9
mI	18.1	22.6

Uncertainties

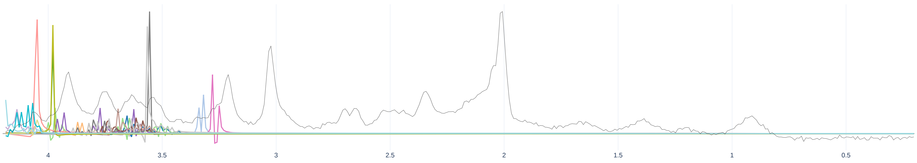




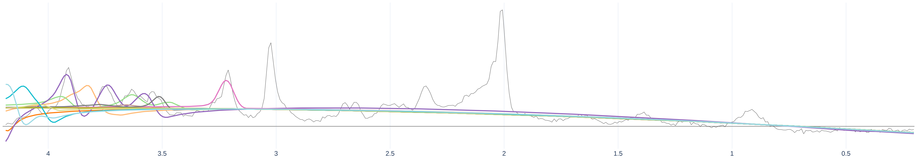
Laplace approx Correlations

Real Abs

Basis spectra summary



Individual metabolite estimates



Analysis methods

Fitting of the SVS data was performed using a Linear Combination model as described in [1] and as implemented in FSL-MRS version 2.3.1, part of FSL (FMRIB's Software Library, www.fmrib.ox.ac.uk/fsl). Briefly, basis spectra are fitted to the complex-valued spectrum in the freouencv domain. The basis spectra are shifted and broadened with parameters fitted to the data and grouped into 1 metabolite groups. A polynomial baseline of order 2 is concurrently fitted. Model fitting was performed using the truncated Newton algorithm as implemented in Scipy.

References

[1] Clarke WT, Stagg CJ, Jbabdi S. FSL-MRS: An end-to-end spectroscopy analysis package. Magnetic Resonance in Medicine 2021;85:2950-2964 doi: 10.1002/mrm.28630.

Chemical shift (ppm)