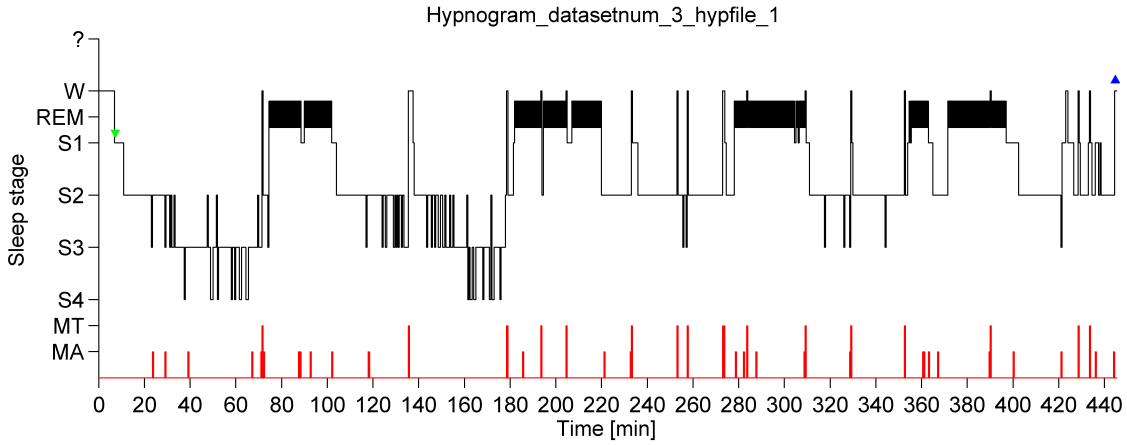
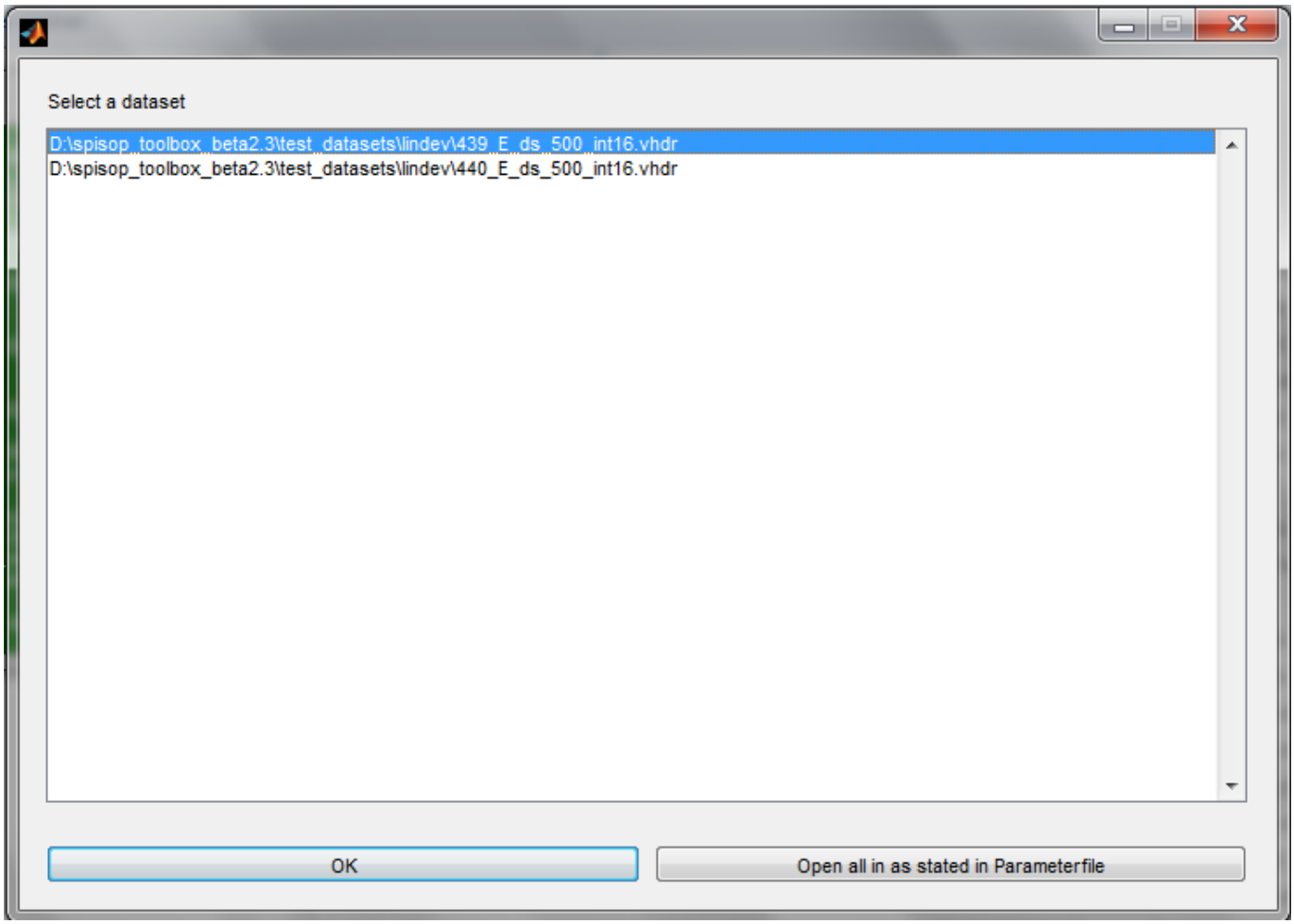
Screenshots

Generating hypnogram figures using the HYPCOMP function

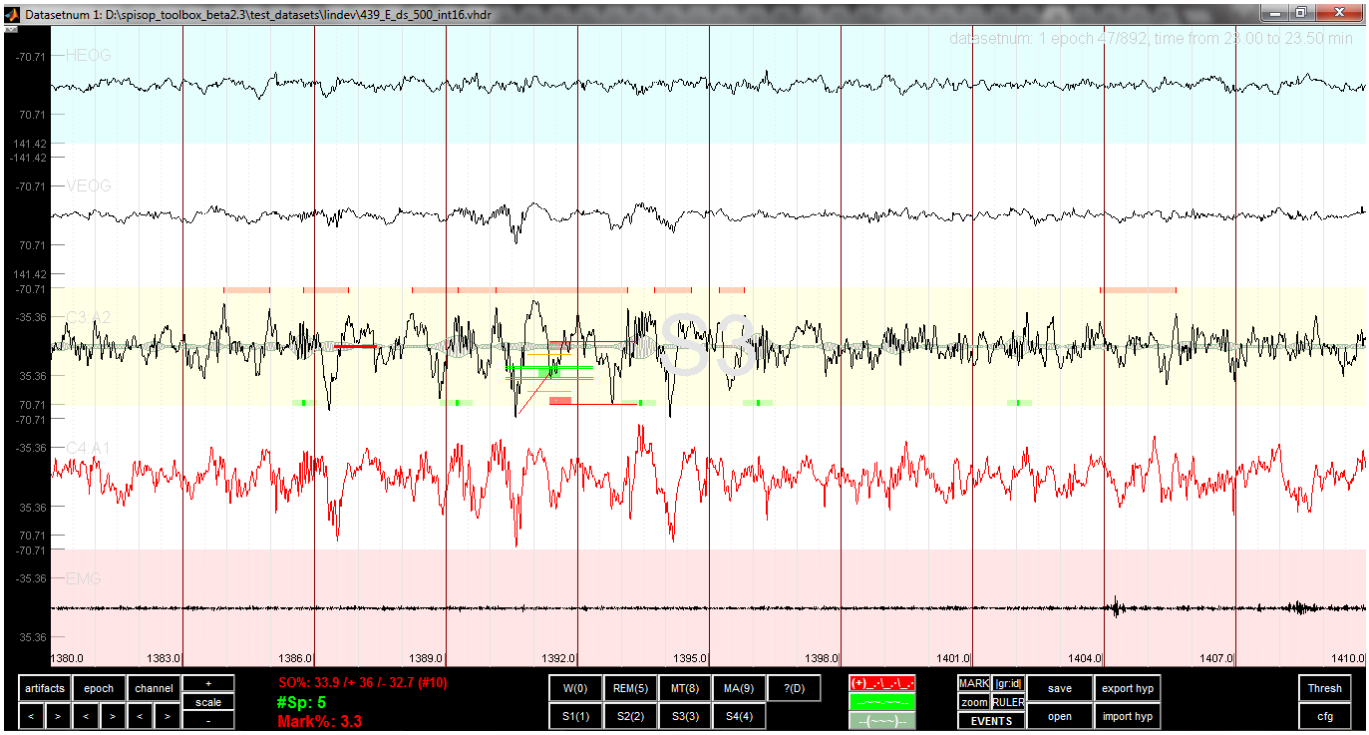


Sleep scoring within the BROWSER

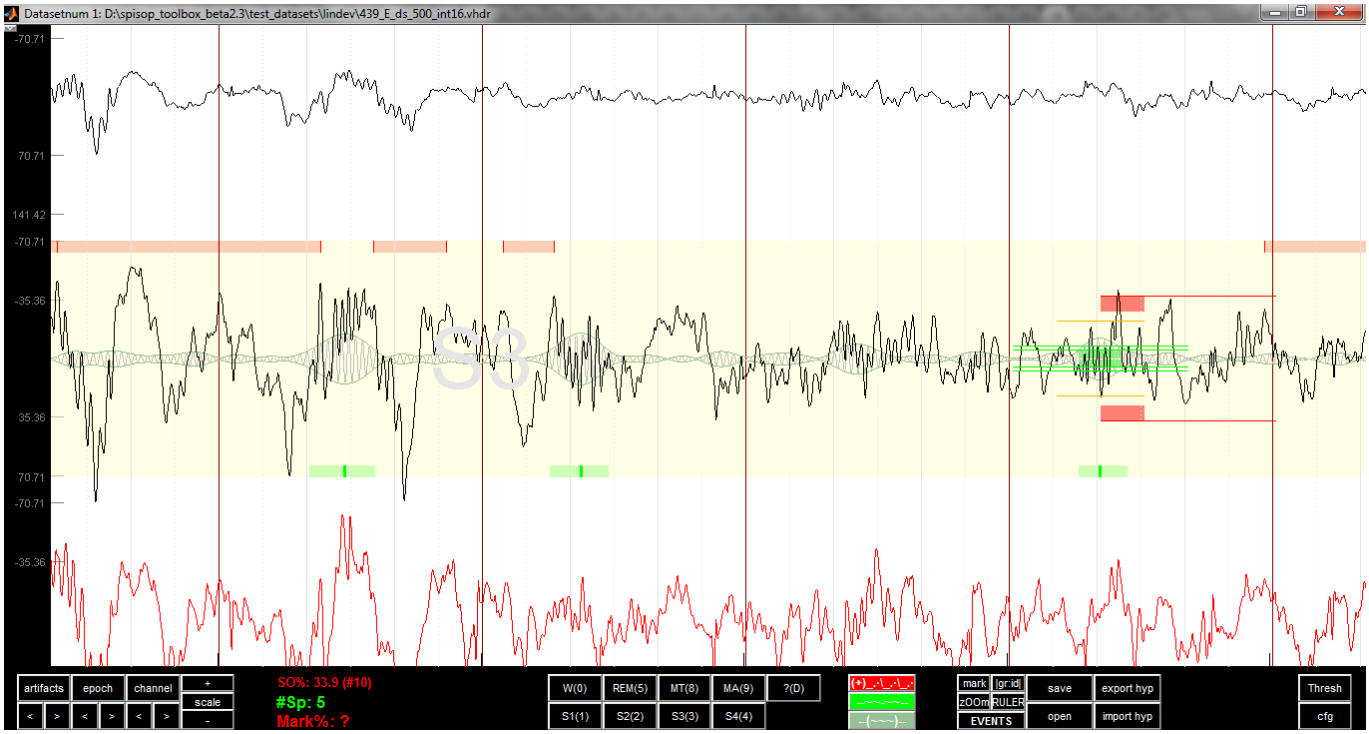
select a dataset



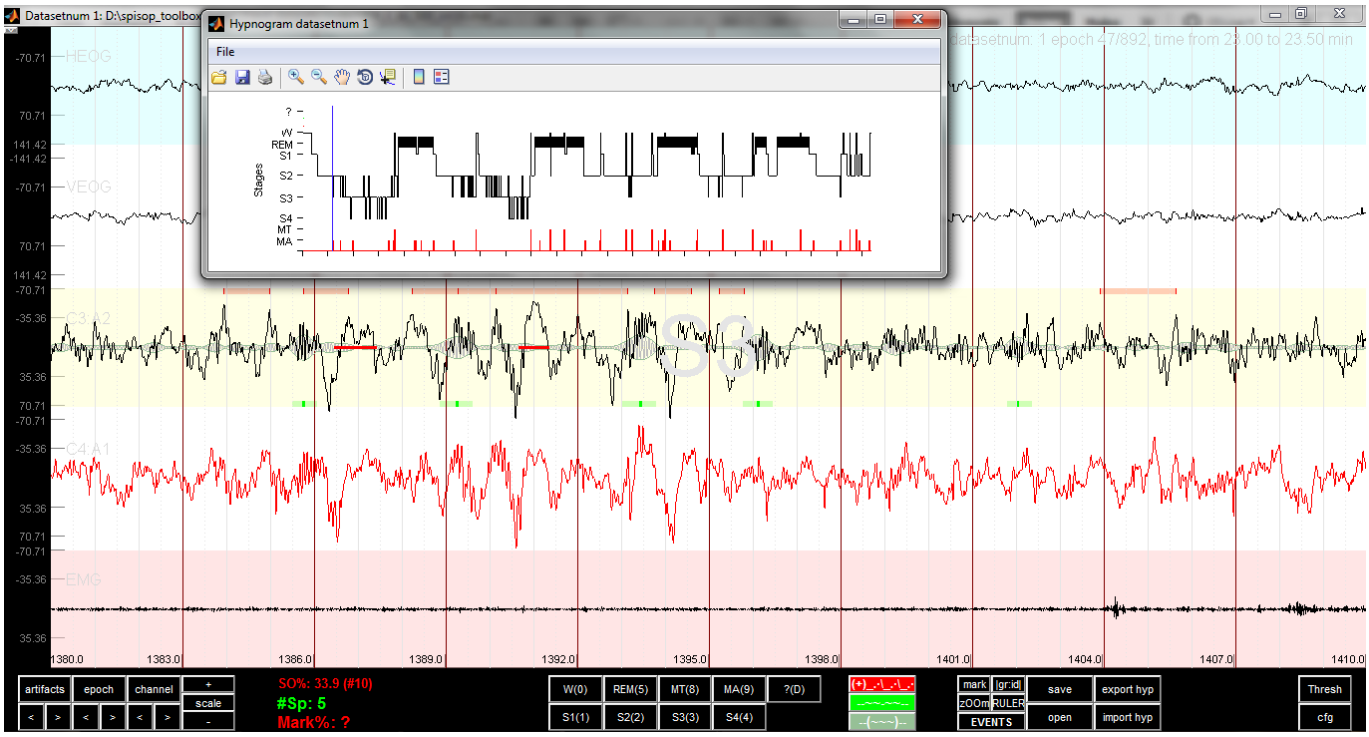
Scoring GUI (marking)



Scoring GUI (zoom)

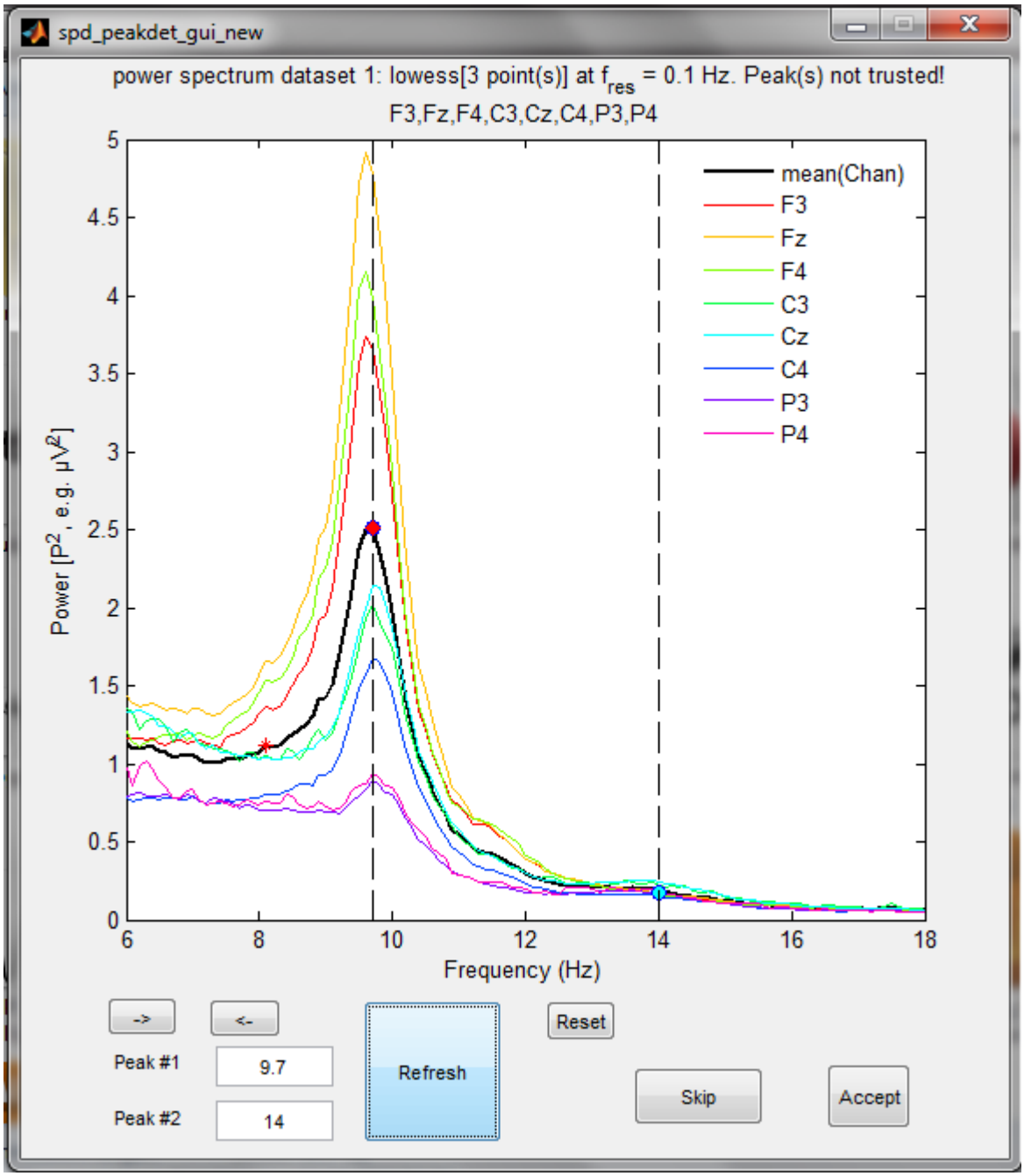


Scoring GUI (hypnogram)

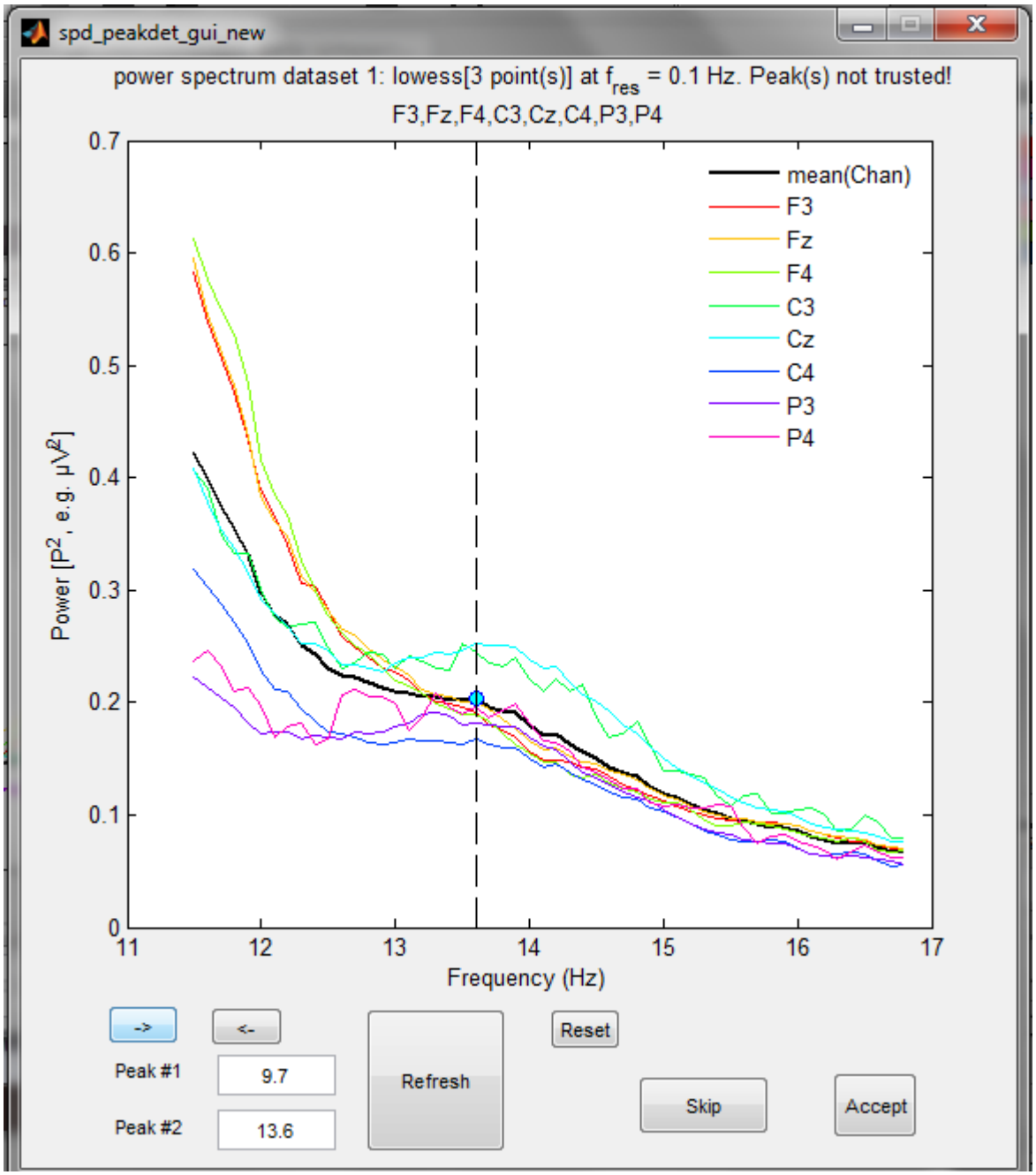


Frequency peak detection using FREQPEAK function

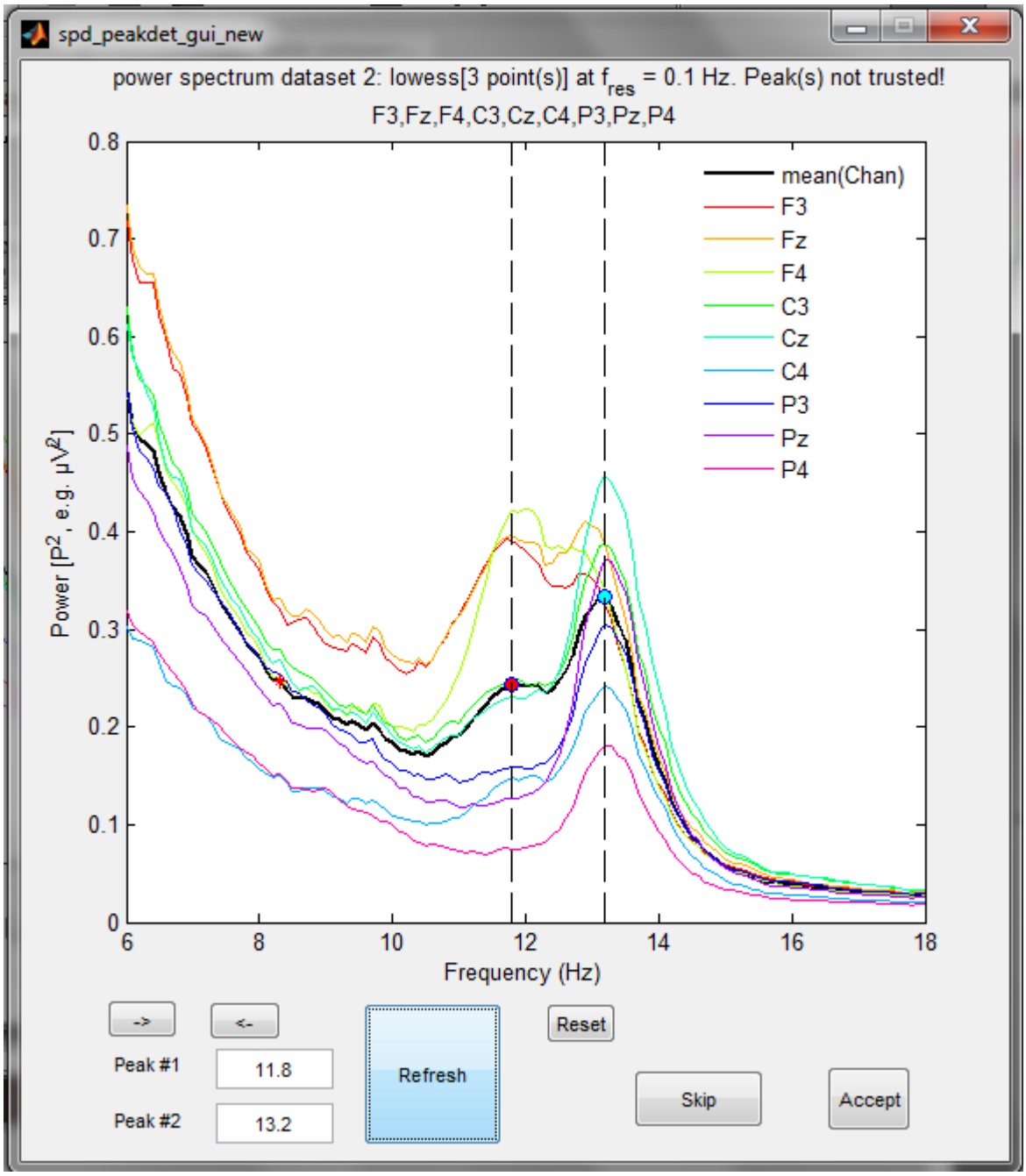
dominant “slow spindle power peak”



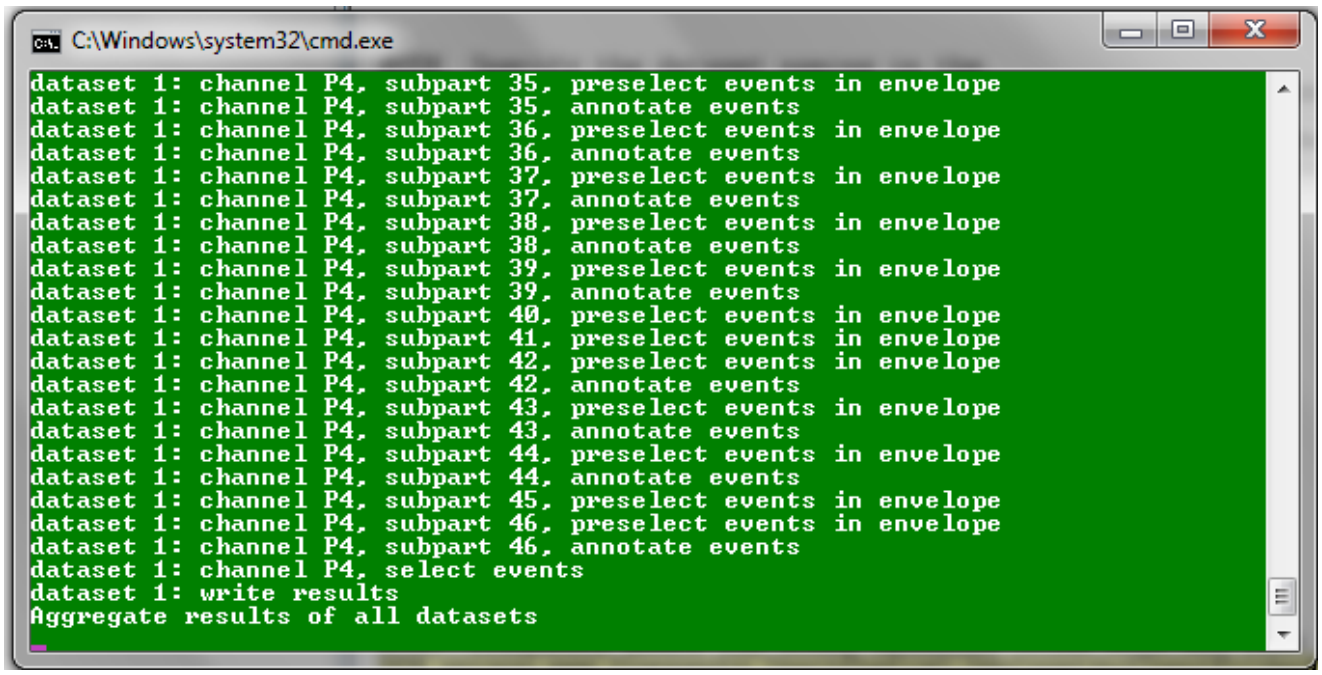
zoom on weak “fast spindle power peak”


spd_peakdet_gui_new
power spectrum dataset 1: lowess[3 point(s)] at f_res = 0.1 Hz. Peak(s) not trusted!
F3,Fz,F4,C3,Cz,C4,P3,P4
mean(Chan)
F3
Fz
F4
C3
Cz
C4
P3
P4
Power [P^2, e.g. μV^2]
Frequency (Hz)
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
11
12
13
14
15
16
17
->
<-
Peak #1
9.7
Peak #2
13.6
Refresh
Reset
Skip
Accept

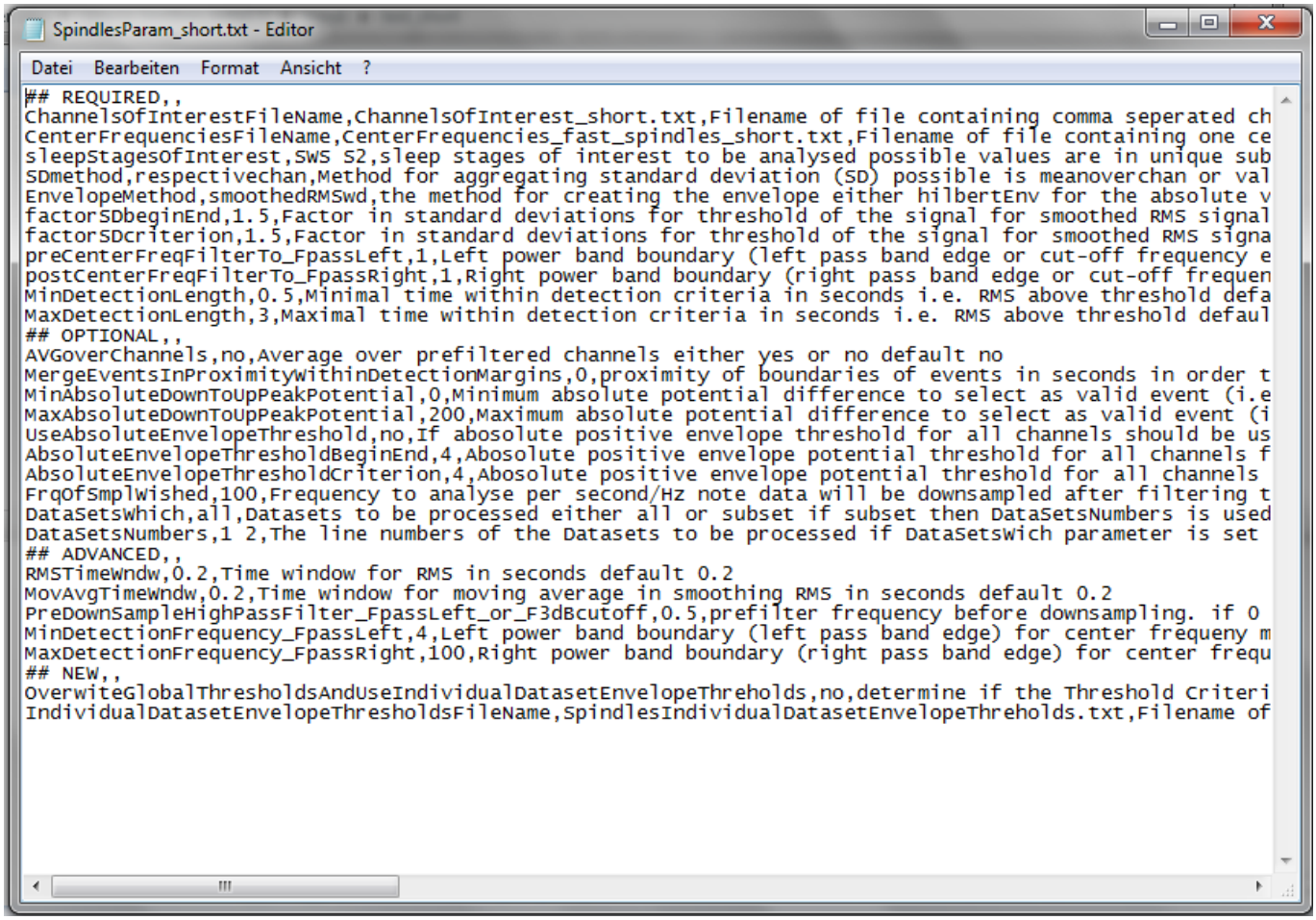
close “slow” (frontal) and “fast” (centro-parietal) spindle power peaks


spd_peakdet_gui_new
power spectrum dataset 2: lowess[3 point(s)] at f_res = 0.1 Hz. Peak(s) not trusted!
F3,Fz,F4,C3,Cz,C4,P3,Pz,P4
mean(Chan)
F3
Fz
F4
C3
Cz
C4
P3
Pz
P4
Power [P^2, e.g. μV^2]
Frequency (Hz)
0
0.1
0.2
0.3
0.4
0.5
0.6
0.7
0.8
6
8
10
12
14
16
18
->
<-
Peak #1
11.8
Peak #2
13.2
Refresh
Reset
Skip
Accept

Command line output



Parameter File in Text editor (spindle detection)


SpindlesParam_short.txt - Editor
Datei Bearbeiten Format Ansicht ?
REQUIRED,,
ChannelsOfInterestFileName,ChannelsOfInterest_short.txt,Filename of file containing comma seperated ch
CenterFrequenciesFileName,CenterFrequencies_fast_spindles_short.txt,Filename of file containing one ce
sleepStagesOfInterest,SWS S2,sleep stages of interest to be analysed possible values are in unique sub
SDmethod,respectivechan,Method for aggregating standard deviation (SD) possible is meanoverchan or val
EnvelopeMethod,smoothedRMSwd,the method for creating the envelope either hilbertEnv for the absolute v
factorSDbeginEnd,1.5,Factor in standard deviations for threshold of the signal for smoothed RMS signal
factorSDcriterion,1.5,Factor in standard deviations for threshold of the signal for smoothed RMS signa
preCenterFreqFilterTo_FpassLeft,1,Left power band boundary (left pass band edge or cut-off frequency e
postCenterFreqFilterTo_FpassRight,1,Right power band boundary (right pass band edge or cut-off frequen
MinDetectionLength,0.5,Minimal time within detection criteria in seconds i.e. RMS above threshold defa
MaxDetectionLength,3,Maximal time within detection criteria in seconds i.e. RMS above threshold defaul
OPTIONAL,,
AVGoverChannels,no,Average over prefiltered channels either yes or no default no
MergeEventsInProximityWithinDetectionMargins,0,proximity of boundaries of events in seconds in order t
MinAbsoluteDownToUpPeakPotential,0,Minimum absolute potential difference to select as valid event (i.e
MaxAbsoluteDownToUpPeakPotential,200,Maximum absolute potential difference to select as valid event (i
UseAbsoluteEnvelopeThreshold,no,If abosolute positive envelope threshold for all channels should be us
AbsoluteEnvelopeThresholdBeginEnd,4,Abosolute positive envelope potential threshold for all channels f
AbsoluteEnvelopeThresholdCriterion,4,Abosolute positive envelope potential threshold for all channels
FrqOfSmplWished,100,Frequency to analyse per second/Hz note data will be downsampled after filtering t
DataSetsWhich,all,Datasets to be processed either all or subset if subset then DataSetsNumbers is used
DataSetsNumbers,1 2,The line numbers of the Datasets to be processed if DataSetsWich parameter is set
ADVANCED,,
RMSTimeWndw,0.2,Time window for RMS in seconds default 0.2
MovAvgTimeWndw,0.2,Time window for moving average in smoothing RMS in seconds default 0.2
PreDownSampleHighPassFilter_FpassLeft_or_F3dBcutoff,0.5,prefilter frequency before downsampling. if 0
MinDetectionFrequency_FpassLeft,4,Left power band boundary (left pass band edge) for center frequeny m
MaxDetectionFrequency_FpassRight,100,Right power band boundary (right pass band edge) for center frequ
NEW,,
OverwiteGlobalThresholdsAndUseIndividualDatasetEnvelopeThreholds,no,determine if the Threshold Criteri
IndividualDatasetEnvelopeThresholdsFileName,SpindlesIndividualDatasetEnvelopeThreholds.txt,Filename of