# Dataset S6

# R code for Bonferroni multiple test correction of spectral analyses

# Uses objects created by Dataset S5

# Define the frequency resolution bands for LOWSPEC associated with predicted

# ~1.2 Myr and ~2.4 Myr grand cycles;   
# these are slightly larger than for the other methods, due to prewhitening

flow=c((1/2.4)-0.0322841,(1/1.2)-0.0322841)

fhigh=c((1/2.4)+0.0322841,(1/1.2)+0.0322841)

# Apply the Bonferroni correction to the LOWSPEC confidence levels

confAdjust(specLow, npts=1239, dt=0.05, tbw=2, ntap=3, pl=2, flow=flow, fhigh=fhigh,   
 output=F)

# Define the frequency resolution bands for MTM-PL, associated with predicted

# ~1.2 Myr and ~2.4 Myr grand cycles

flow=c((1/2.4)-0.03225806,(1/1.2)-0.03225806)

fhigh=c((1/2.4)+0.03225806,(1/1.2)+0.03225806)

# Apply the Bonferroni correction to the MTM-PL confidence levels

confAdjust(specPL1, npts=1240, dt=0.05, tbw=2, ntap=3, pl=2, flow=flow, fhigh=fhigh)

# Apply the Bonferroni correction to the Periodogram-AR1 confidence levels

confAdjust(specAR1, npts=1240, dt=0.05, tbw=1, ntap=1, pl=2, flow=flow, fhigh=fhigh)

# Apply the Bonferroni correction to the Periodogram-PL confidence levels

confAdjust(specPL2, npts=1240, dt=0.05, tbw=1, ntap=1, pl=2, flow=flow, fhigh=fhigh)