Sum of 3 Cosines (even spacing)

$Lomb-Scargle$ Periodogram

Period at Peak = 21.8 hours

Peak Significance

$p = 0.00246$ at Peak

Expression

$N = 48$
**Sum of 3 Cosines (not even)**

![Graph showing data points with labels N = 48 and Time [hours]](image)

**Lomb–Scargle Periodogram**

- **Period at Peak = 7.7 hours**

**Peak Significance**

- **p = 0.00137 at Peak**
3 Cosines + N(0, 0.10)

Lomb–Scargle Periodogram

Period at Peak = 53.3 hours

Peak Significance

p = 0.00035 at Peak
3 Cosines + \( N(0, 0.25) \)

Lomb–Scargle Periodogram

Period at Peak = 20.9 hours

Peak Significance

\( p = 0.000154 \) at Peak
3 Cosines + N(0, 0.50)

Lomb–Scargle Periodogram

Period at Peak = 22.9 hours

Peak Significance

p = 0.000911 at Peak
3 Cosines + N(0, 0.75)

Expression

Time [hours]

Normalized Power Spectral Density

Lomb–Scargle Periodogram

Period at Peak = 53.3 hours

Peak Significance

p = 0.00154 at Peak
3 Cosines + N(0, 1.00)

Lomb–Scargle Periodogram

Period at Peak = 20.9 hours

Peak Significance

p = 0.0685 at Peak
3 Cosines + $N(0, 1.50)$

Lomb–Scargle Periodogram

Period at Peak = 53.3 hours

Peak Significance

$p = 0.0188$ at Peak
Sum of 3 Cosines (N=48)

Lomb–Scargle Periodogram
Period at Peak = 22.9 hours

Peak Significance
p = 2.45e−006 at Peak
Sum of 3 Cosines (N=48)

Lomb–Scargle Periodogram

Period at Peak = 22.9 hours

Peak Significance

p = 1.06e−007 at Peak
Sum of 3 Cosines (N=48)

Lomb–Scargle Periodogram

Period at Peak = 22.9 hours

Peak Significance

p = 2.71e−008 at Peak
Sum of 3 Cosines (N=48)

Lomb–Scargle Periodogram

Time [hours]

Expression

Normalized Power Spectral Density

Frequency [1/hour]

Period at Peak = 24 hours

Peak Significance

p = 6.72e−009 at Peak

Probability

Frequency [1/hour]
Sum of 3 Cosines (N=48)

Lomb–Scargle Periodogram

Period at Peak = 7.9 hours

Peak Significance

p = 4.88e−006 at Peak
**Sum of 3 Cosines (N=48)**

![Graph of a sum of 3 cosines with N=48 showing time in hours on the x-axis and expression on the y-axis.]

**Lomb–Scargle Periodogram**

- Period at Peak = 7.9 hours

![Lomb–Scargle Periodogram showing normalized power spectral density on the y-axis and frequency in 1/hour on the x-axis.]

**Peak Significance**

- Peak Significance: $p = 1.88 \times 10^{-7}$ at Peak

![Graph showing peak significance with probability on the y-axis and frequency in 1/hour on the x-axis.]
Sum of 3 Cosines (N=48)

Lomb–Scargle Periodogram

Period at Peak = 7.9 hours

Peak Significance

p = 4.4e−008 at Peak
Sum of 3 Cosines (N=48)

Lomb–Scargle Periodogram

Period at Peak = 8 hours

Peak Significance

p = 6.72e−009 at Peak
Sum of 3 Cosines (N=48)

Lomb–Scargle Periodogram

Period at Peak = 53.3 hours

Peak Significance

p = 4.91e−006 at Peak
Sum of 3 Cosines (N=48)

Lomb–Scargle Periodogram

Peak Significance

Period at Peak = 53.3 hours

p = 1.88e−007 at Peak
Sum of 3 Cosines (N=48)

Lomb–Scargle Periodogram

Peak Significance

- Period at Peak = 53.3 hours
- p = 4.39e−008 at Peak

Normalized Power Spectral Density

Frequency [1/hour]

Probability

Frequency [1/hour]
Sum of 3 Cosines (N=48)

Lomb–Scargle Periodogram

Period at Peak = 48 hours

Peak Significance

p = 6.72e−009 at Peak