Total Sound Amplitude vs. Time
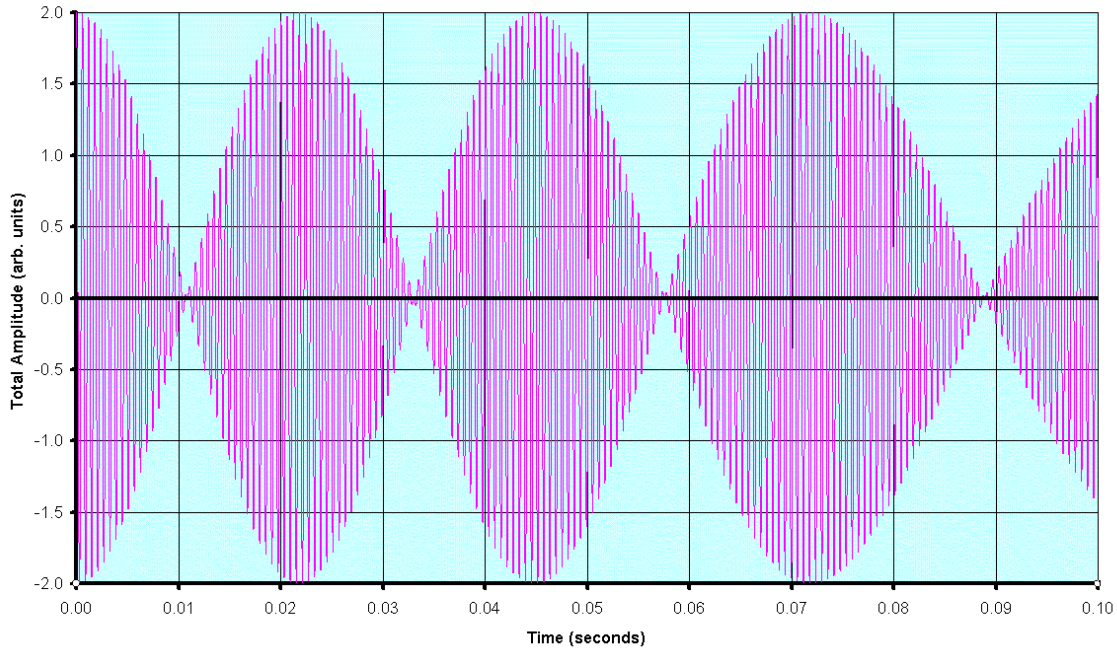**Rotating Vibrating Rod**

In the second picture, we show the total displacement amplitude, $y_{tot}(x,t) = y_1(x,t) + y_2(x,t)$ for one entire rotational period, $\tau = 1$ second. The beat pattern between the two sound sources has quite a lot of interesting structure, due to the rotational Doppler effect.

Total Sound Amplitude vs. Time
Rotating Vibrating Rod

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