



Figure 4. Schematic of Galileo's experiment with graph of competing predictions: The standard textbook answer is that the test object executes simple harmonic motion (red curve). In none of the many places where this prediction is discussed, however, is empirical evidence ever presented to back it up. Independent of any non-standard model, doing the experiment would therefore be a valuable contribution to science. For our particular purpose, the SGM's drastically different prediction (blue curve) would be unequivocally supported or refuted. The 60 minute oscillation period corresponds to a sphere whose density is about that of lead.