and I refer the reader to his work.

Lundberg has delved deep into the math and art of their construction, Their relationship to each other stay at Padua (Lundberg p. 224).

Right: A Renaissance era family of travelers. I suggest we recreate this experimental setup for exhibit attendees to try out. The frets roughly in place, the ball made a sound on striking the plane after passing over each one; they were then adjusted until each of those sounds was judged to be exactly on a beat. It remained only to measure their distances from the point at which the resting ball touched the plane. "—S. Drake (1978, p. 89)’s reconstruction of Galileo’s data collection (above right, with a schematic diagram above-left from E. Cavicchi, 1997), which correctly ascertained that successive distances traveled by a body falling along an inclined plane are odd number multiples of the first distance it traveled. I suggest we recreate this experimental setup for exhibit attendees to try out.

Above: “He [Galileo] tied gut frets around his grooved plane, as frets are tied on the neck of a lute, so that they are snug but can be moved as needed; to set their initial positions it sufficed to sing a march tune, release the ball on one beat, and mark its approximate positions at the following beats.” With the frets roughly in place, the ball made a sound on striking the plane after passing over each one; they were then adjusted until each of those sounds was judged to be exactly on a beat. It remained only to measure their distances from the point at which the resting ball touched the plane.

With the frets roughly in place, the ball made a sound on striking the plane after passing over each one; they were then adjusted until each of those sounds was judged to be exactly on a beat. It remained only to measure their distances from the point at which the resting ball touched the plane. (S. Drake 1978, p. 89)’s reconstruction of Galileo’s data collection (above right, with a schematic diagram above-left from E. Cavicchi, 1997), which correctly ascertained that successive distances traveled by a body falling along an inclined plane are odd number multiples of the first distance it traveled. I suggest we recreate this experimental setup for exhibit attendees to try out.

Left: Perhaps the youngest extant painting of Galileo; since much of music’s influence on Galileo occurred when he was young (his father died when Galileo was in his late twenties). I suggest the use of this painting in the exhibit. The subject’s identification as Galileo is certain (Malton 2012, Astron. Nachr., 333, 2, 186), but this may be a chance to collaborate with the art history department on communicating the historical method of portrait identification.

According to R. Lundberg, “from Galileo’s many letters we know that music, especially playing his lute, was a source of great pleasure and a special comfort and solace to him in his final years, when blindness was added to the many other trials of his life” (Music and Science in the Age of Galileo proceedings, 1992, p. 211, Ed. Victor Coelho; a disciple of Galileo’s, perhaps inaccurately, went so far as to say that Galileo exceeded his father’s talent as a performer.

Left: I had initially hoped to find what Lundberg calls “a manuscript tutor especially written for Galileo by Vincenzo, which contains marginalia by Galileo consist of mathematical analyses of the music” (Lundberg p. 211, referencing a personal comm. with S. Drake). Both Lundberg and Drake are deceased, and the closest I got were these pages from Ms. Gal. 2. I asked R. Goldberg about these notes; he responded that these were written by Vincenzo himself: "in this case he is complaining about composers who will not acknowledge and fix their own errors. Galilei wrote out the equations in the margin to show that some musical intervals are not the size that others say they are" (personal comm.). There is as yet no English translation of these pages, but there is a transcription. I suggest we include these pages in the exhibit, ideally with a translation, to demonstrate Galileo’s mathematical bent and the influence on Galileo’s attitude to his philosophical colleagues. The tutor I had hoped to find does not appear to be in Gal. 187-189 of the Biblioteca Nazionale centrale di Firenze (Galileo Makes a Book, 2011, p. 54, Ed. Bredekamp). Among these in Fronimo, a Galilean “dialogue between a teacher (Fronimo) and his pupil (Eumatio) [. . .] in which he contained the true, and necessary rules for the intabulation of the Music for the Lute” (for more information on all the Vincenzo manuscripts, I direct the reader to R. Goldberg’s recent dissertation, available upon request).

Left: Possibly a portrait of a young Vincenzo Galilei (ca. 1520 – 2 July 1591), Galileo’s father, by Alessandro Allori (though I cannot find a reliable reference for this identification). Vincenzo was a prominent and historically important lutenist, composer, and music theorist, and Michelagnolo, another of his sons, also became a lutenist and composer.

Various authors, including S. Drake and C. Palisca (e.g., see V. Coelho’s 1992 conference on Music and Science in the Age of Galileo proceedings, 1992, p. 211, Ed. Victor Coelho; a disciple of Galileo’s, perhaps inaccurately, went so far as to say that Galileo exceeded his father’s talent as a performer. If there are others, neither P. Canguilhem nor R. Goldberg are aware of them, and the tutorial may somewhere exist. According to R. Lundberg, “from Galileo’s many letters we know that music, especially playing his lute, was a source of great pleasure and a special comfort and solace to him in his final years, when blindness was added to the many other trials of his life” (Music and Science in the Age of Galileo proceedings, 1992, p. 211, Ed. Victor Coelho; a disciple of Galileo’s, perhaps inaccurately, went so far as to say that Galileo exceeded his father’s talent as a performer.

Right: Several of Vincenzo Galilei’s compositions for lute are available to listen to online, and can be found as sheet music in both transcribed and original manuscript form. Larry Hammett, director of guitar studies at OU, regularly plays the lute, and I hope to enlist him and his students to have periodic small performances in the exhibit room.


Music in Galileo’s Life/Work
Adrian B. Lucy