

Mathematics and Music: Tentative Schedule

March 7 — Fourier analysis

March 10 — Tuning and temperament

March 14 — Tuning and temperament

March 17 — Yousuf Kerai, Mathematics and the tabla

March 21 — (finish off tuning;) The music of the spheres

March 24 — Mathematics in musical composition
(Eric — group theory in composition)

March 28 — Gödel, Escher, Bach

March 31 — Extra time to allow for “drift” in the above (each topic is likely to overflow a bit)

April 4 — Presentations: The science of musical construction

J. J. — Helmholtz

Heather — stringed instruments

Westbrook — microtonal scales

Matt — ???

April 7 — Presentations: Miscellaneous topics

Sonia — Indian music

Emma — Birkhoff’s musical aesthetic system

Scott — The harmonograph

April 11 — Presentations: Using mathematics to compose

Alex — Mathematics as inspiration for composition

Sophie — Iannis Xenakis

Dana — The golden ratio in music

Kirk — Fractals in composition