

## Engineering musical aesthetics: science, technology, and the trautionium”

*Tuesday, July 15, 2025 11:00 AM (25 minutes)*

This talk proffers a history of an electronic musical instrument, the trautionium, and uses it as a heuristic tool to probe the contours between the natural sciences, radio engineering, musical aesthetics, and politics from the 1920s through the 1960s. Such a material and cultural history of an object forces us to rethink the notion of modernity by showing how an electronic musical instrument dissolves our preconceived and deeply entrenched notions of the boundaries between various bits of twentieth-century science, technology, and culture. Specifically, the instrument was forged in a crucible of the Radio Experimental Laboratory in Berlin where physicists, physiologists, radio engineers, and musicians all collaborated to improve the fidelity of human voices and musical instruments transmitted over the radio. Because of the instrument’s flexibility in terms of simulating the tone colors of traditional acoustical instruments as well as creating new sounds and timbres, it could appeal to diverse audiences throughout drastically different political regimes. Featured in musical performances, radio dramas, industry and cultural films, theater pieces, operas, and ballets, the trautionium represents a wonderful example of how scientists, engineers, and musicians were able to create a device that simultaneously embodied physical, physiological, and technological theories as well as indelibly changed the soundscapes of numerous twentieth-century cultural venues.

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**Session Classification:** Modes and Material Conditions of Evolution of Knowledge