Selling Physics Education to Women in the Early Twentieth Century

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Abstract: In the early twentieth century, American physics teachers collaborated with home economics departments to create a new field of education: household physics. Born out of efforts to make physics more “relevant” to female students in high schools and colleges, these courses applied the basic introductory physics curriculum to technological problems of the modern household. Professors extensively tailored physics material toward what were assumed to be the needs of their female audience; however, these courses were created not just to educate, but also to sell. The courses attempted to mold students into a specific ideal of the modern housewife: a scientifically-informed consumer who no longer feared but welcomed technological innovation. This talk will explore the ways in which household physics courses cultivated a female student’s relationship with technology by examining the textbooks used for those courses. Moving forward, this talk will suggest ways to recognize and interrogate themes of progress, commercialism, and gender stereotypes in contemporary science education.

Bio: Joanna Behrman is a public historian with the Center for History of Physics at the American Institute of Physics. In her work she oversees multiple initiatives on education and outreach in the history of the physical sciences, including teaching guides, web exhibits, and a public lecture series. She earned her Ph.D. in the History of Science from Johns Hopkins University in 2020. Her research focuses on the history of physics, gender, and education, and her book manuscript, entitled The Other Physicists, focuses on how female physicists built careers and communities at women’s colleges in the 19th and 20th centuries. She is active in the History of Science Society and the American Association of Physics Teachers, where she was the 2020 Chair for the Committee on the History and Philosophy of Physics.