

Student invents the Hyperbow

August 8 2006

A U.S. graduate student has invented an electronic system to measure minute changes in the position, acceleration and strain of a violin bow.

Diana Young, a doctoral candidate at the Massachusetts Institute of Technology, says the system can be used to evaluate different bowing techniques and might expand the expressive possibilities of the violin.

The sensing system is integrated into a commercial carbon fiber bow, using an electromagnetic field sensing technique.

Young, who has a B.A. in music from Johns Hopkins University and a certificate in violin performance from the Peabody Conservatory, built the gesture-sensing system for her master's degree, which she received from MIT in 2001.

She recently spoke about her work during the 151st meeting of the Acoustical Society of America in Providence, R.I., and at the sixth International Conference on New Interfaces for Musical Expression in Paris.

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Citation: Student invents the Hyperbow (2006, August 8) retrieved 23 April 2024 from <https://phys.org/news/2006-08-student-hyperbow.html>

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