

## Interactive Tango Milonga: Fragments

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**Abstract.** Interactive Tango Milonga<sup>1</sup>: Fragments is an interactive dance performance using the Interactive Tango Milonga system, which enables dancers to drive musical outcomes via their movements within the Argentine tango music and dance tradition. Tango dancers are given agency over music in order to increase connection, the Argentine tango concept describing a transcendent experience of relation and synchronization between partners and music. Motion sensors are attached to the ankles and back of each dancer, and the information coming from these sensors are then translated into tango music. Like an improvising musician in an ensemble, each dancer receives musical feedback from both her movements and her partner's. Thus, each dancer can respond to the music, receiving further musical feedback, becoming further involved in both the sound and her partner's movements.

**Keywords:** NIME, Argentine tango, HCI, Embodiment

### Interactive Tango Milonga: Fragments

*Interactive Tango Milonga: Fragments* is an interactive dance performance danced by Courtney Brown and Brent Brimhall in the style of Argentine tango. Courtney Brown is also the creator of the interactive tango system and the tango music composer. The performance will be a structured improvisation as Argentine tango is traditionally improvised, lasting 4.5-5 minutes.

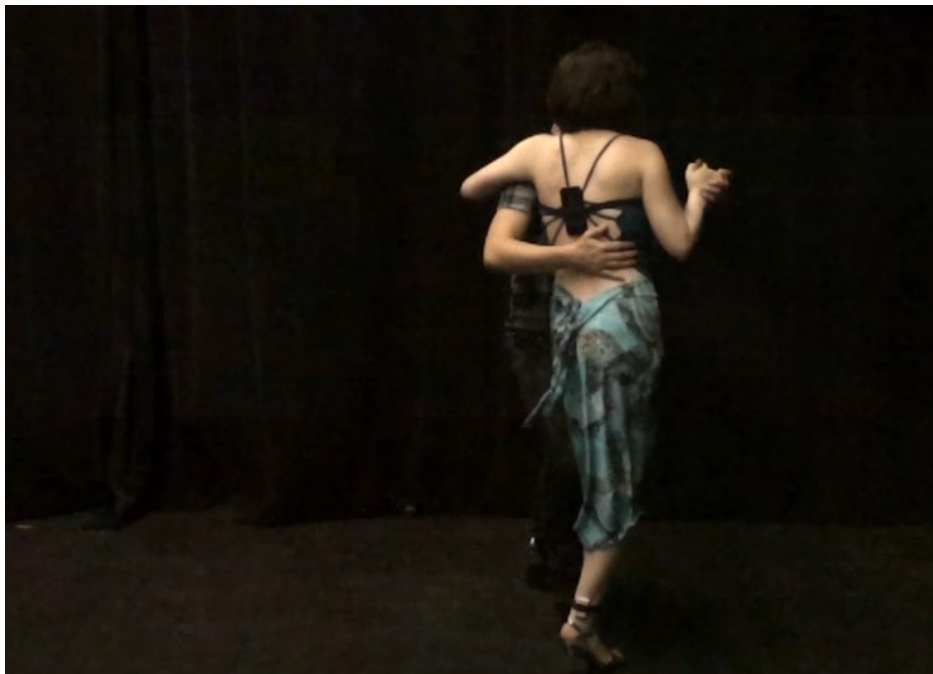


Figure 1. Dancers using the Interactive Tango Milonga system

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<sup>1</sup> Milonga refers to a formal Argentine tango social dance event.

*Interactive Tango Milonga: Fragments* demonstrates a new instrument for musical expression for the Argentine tango dance and music tradition. Argentine tango dance was born in diverse immigrant working class communities of Río de la Plata, combining several traditions including the habanera, the Andalusian tango, and the candombe, an Uruguayan slave dance. Argentine tango music emerged after the dance tradition, and unlike most other Western social partner dances, like salsa, no standard basic step set to a particular rhythmic figure exists within the dance. Instead, movement in each moment is the result of nonverbal communication. Tango dance couples respond to the same music with diverse rhythms, movement qualities, and figures. Tango dance musicality, i.e., how dancers engage and respond to the music, requires creative decisions and negotiations between each leader and follower. Dancers improvise their own musical interpretations and also respond to their partner's via touch and movement. *Interactive Tango Milonga* is a new musical interface giving voice to this movement, allowing skilled dancers a novel avenue of connection, through sound.

Movement qualities and actions are translated into musical outcomes in a number of ways. For example, in the video documentation in the link below, follower steps and kicks control the onset of pieces of melody. Additionally, perceptual characteristics of movement are translated to similar musical perceptual characters, building a unified tango music-movement perceptual space. Many movement and music features with different weightings determine which perceptual category each falls into and how each is mapped. For instance, the smoothness or choppiness of the couples' movements are reflected in the music, how staccato or legato it is. Another example is how movement density is reflected in music density. So, how busy or sparse movement is determines this quality in the music – how many notes are played, what the thickness of the orchestration is. Dancers may also add musical ornaments and gain continuous control over their timbre and volume by performing a few specific tango gestures, such as the circling foot adorno.

Argentine tango is largely a social dance, taking place in dance halls, restaurants, and bars rather than the stage. The space between performers and spectators is fluid one, where those who are experts and novices both dance together and share the dance floor. By dancing, participants are engaging with a larger community and living tradition. Argentine tango performance grows out of this social tradition, where tango students, experts and professionals, demonstrate their skills and highly personal style to an audience of fellow dancers during a milonga, usually around midnight. Performance has also been a crucial to the export of Argentine tango and how new dancers come to know and join the global tango community. The interactive tango system, *Interactive Tango Milonga*, is also primarily a system for social dance, and the performance, likewise, arises out of the tradition of demonstration and interpretation.

## Additional Information

Video Documentation: <http://vimeo.com/courtneydbrown/interactive-tango-milonga-performance-demonstration>

Video Explainer: <http://vimeo.com/courtneydbrown/interactive-tango-milonga>

## Biography

Courtney Brown (creator, engineer, composer, dancer) is a sound artist, researcher and Argentine tango dancer. She is a doctoral candidate in Digital Media and Performance at Arizona State University, and a graduate of Dartmouth's Electroacoustic Master's Program. A former Fulbright Fellow, she developed interactive Argentine tango dance during her residency in Buenos Aires, Argentina. This on-going project gives dancers agency over music, their movements driving real-time musical composition within an Argentine tango social dance context. Through the physical act of creating sound, her works are a catalyst for investigating and altering embodied experience. Her continuing project, 'Rawr! A Study in Sonic Skulls', allowing both gallery visitors and musical performers to give voice to an extinct lambeosaurine hadrosaur, won an Honorary Mention from 2015 Prix Ars Electronica in Digital Music & Sound Art. For more, go to <http://www.courtney-brown.net>.

Brent Brimhall (dancer) has been an Argentine tango dancer for five years has a background in martial arts, yoga, somatics, and post-modern contemporary dance.