Experiment 2 Documentation

Part of the Uk Data Service dataset titled "Interactions in Duo Improvisations"

This data release relates to the topic of interactions in music performance, carried out within an AHRC-funded project called *Interpersonal Entrainment in Musical Performance* [grant number AH/N00308X/1]. The data consists of annotations, movement and audio descriptors, and computational predictions of interactions in jazz duos. The jazz duos are represented by 15 pulsed (standard jazz) improvisations and 15 non-pulsed improvisations (free jazz) examples, which have been documented previously (Moran et al., 2015, http://dx.doi.org/10.7488/ds/251) and the videos have been released separately, see http://datashare.is.ed.ac.uk/handle/10283/2840. Here we release only the numerical data used in the evaluation of wavelet-based methods to estimate the interactive bouts within the performances.

Experiment 2: Stimuli and ratings from a validation experiment

The experiment utilized 96 videos in total divided into 2 sets, one comprising full videos and other comprising cropped videos. In the cropped videos, most of the visual information was masked except the two regions of interest that were used in Experiment 1 for the computer vision tracking of the two performers, which are visible. Both sets contain 48 videos, which consist of 4 categories of stimuli, each with 12 videos. Each video is 7.5 seconds in duration and there is a 320 ms fade-in and fade-out in each video. The full videos from which these 7.5-second clips were attained are available at http://datashare.is.ed.ac.uk/handle/10283/2840.

The ascii data file called `exp2_data.csv` contains the full filenames, references to the original dataset, the onset of the video segment, the regions of interests (ROIs) that were used for constructing the cropped videos, the prediction from a CWT model (CWT Energy across 0.3 – 2.0 Hz based on a logistic regression model), and the mean participant ratings of interaction (on a scale of 1-7, where 1 = low interaction, 7 = high interaction).

- `Nro` *[numeric]*: Stimulus number (1…96, for reference).
- `Dataset` *[string]*: Dataset ("Pulsed" or "Non-pulsed").
- `Stim_category` *[string]*: Classification category referring to CWT Energy model with respect to expert annotations ("tp"=True Positive, "fp"=False Positive, "tn" = True Negative, "fn"=False negative).
- `Stim_visual` *[string]*: Visual treatment ("FULL"=Full video, "CROPPED"=Cropped to ROIs).
- `Stim_movement_quantity` *[string]*: The amount of movement in the clip as established by summing the quantity of motion over the two performers.
- `SEQ` *[numeric]*: Duo number (1...30), cross-reference to Exp. 1.

- `Filename_original` *[string]*: Filename of the video (see original study; Moran et al., 2015). See Experiment 1 documentation for details about the filenames.
- `Onset` *[numeric]*: The onset of the clip from the original file in seconds (all durations were 7.5 seconds).
- `ROI1_x, ROI1_y, ROI1_d` *[numeric]*: Regions of interest (ROI) for performer 1 defined by three values, x, y and d (dimension, both horizontal and vertical), all defined in pixels.
- `ROI2_x, ROI2_y, ROI2_d` *[numeric]*: Regions of interest (ROI) for performer 2 defined by three values, x, y and d (dimension, both horizontal and vertical), all defined in pixels.
- `Filename_created` *[string]*: Filename for the created video clips (for reference).
- `CWT_Energy` *[numeric]*: Energy from the cross-wavelet transform over a broad frequency band.
- `QoM12` *[numeric]*: Amount of movement in the clip aggregated across 2 performers.
- `Ratings` *[numeric]*: Mean participant ratings of interaction.