

c4dm.eecs.qmul.ac.uk/multitrack/MixEvaluation/

1 Motivation

- Mixing multitrack music is multidimensional and subjective
- Severe lack of data for research on best practices
 - Copyright
 - Reluctance to share unpolished work
 - Limited access to parameter settings
- Many studies resort to lab-based mix creation

2 Dataset

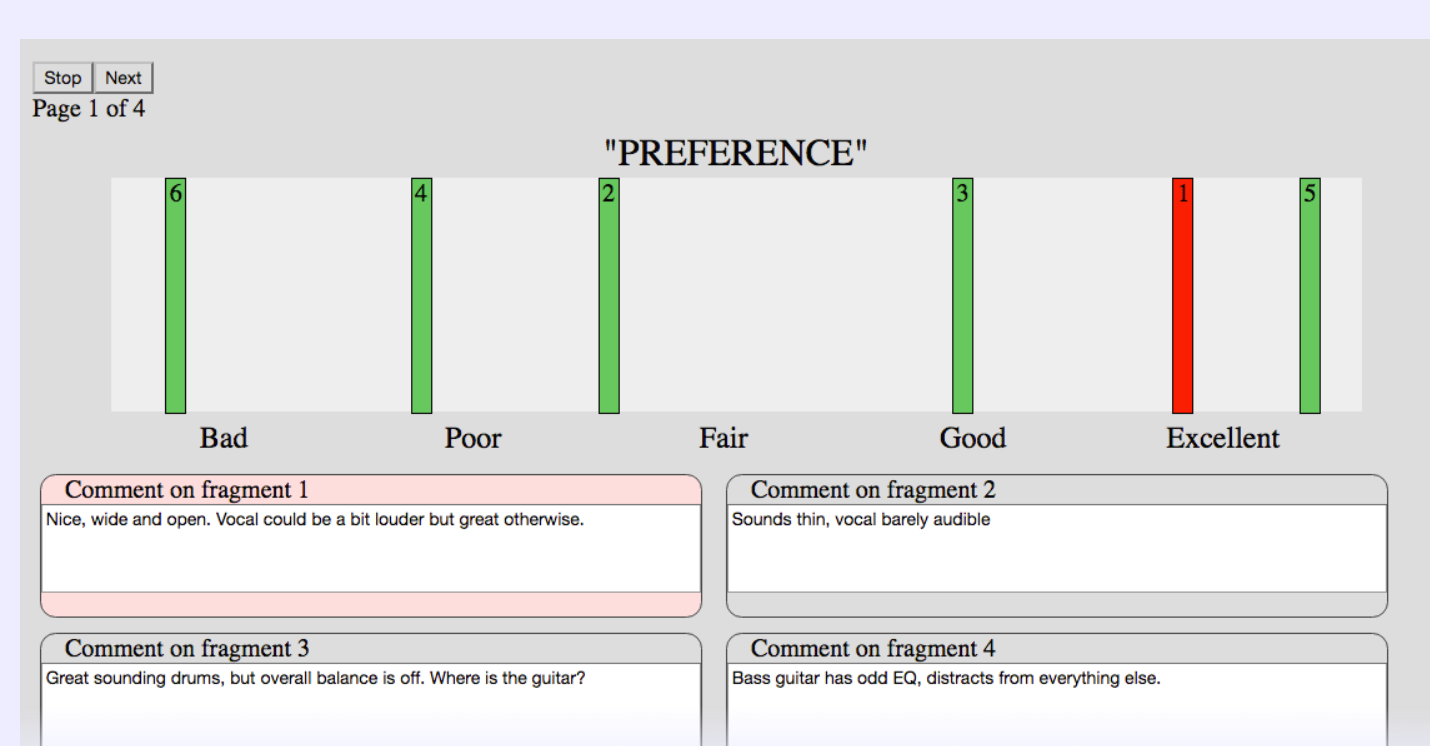
Mix creation

- 180 mixes from sound engineering students in four different countries
- Ecological relevance: preferred environment/tools
- Access to
 - High resolution mixes
 - Raw tracks
 - DAW session files (parameter settings)
 - Processed stems
 - Metadata including instrument labels

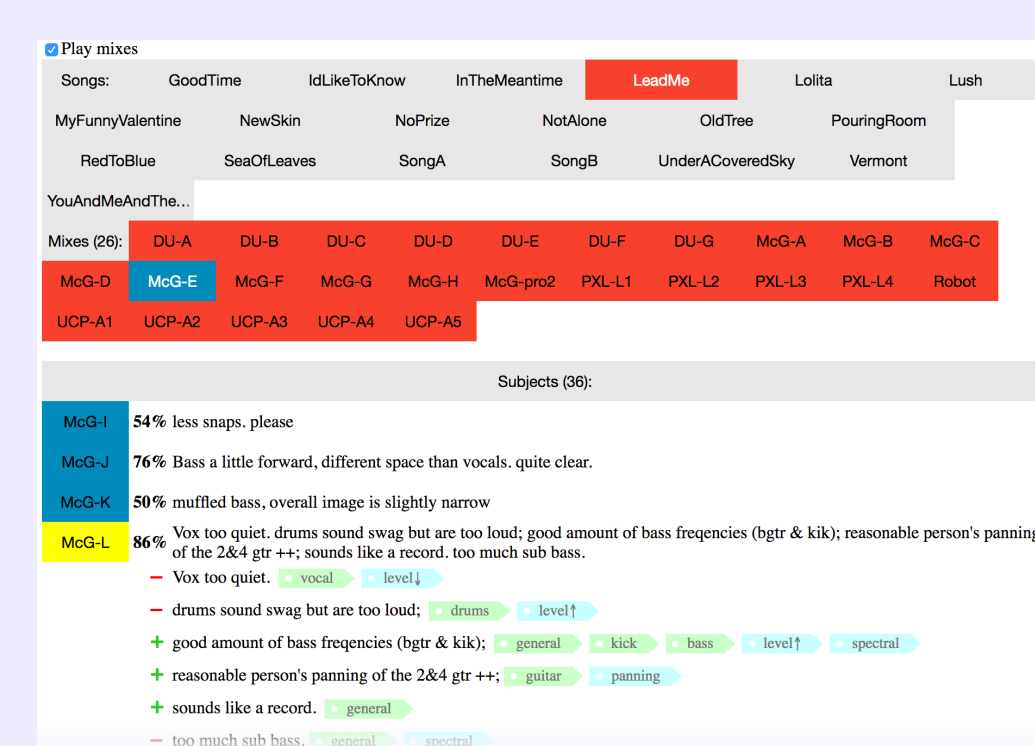
Perceptual evaluation

- 5000 mix evaluations from five different countries
- Hedonic preference ratings and comments
- Detailed annotation of comments
- Subject demographics and surveys

| | McG | MG | QM | SMC | DU | PXL | UCP | TOTAL |
|-------------------------|--------|-------|-------|-------|----------------|--------|---------|---------------|
| Country | Canada | | | | United Kingdom | Sweden | Belgium | Portugal |
| #subjects | 33 | 8 | 21 | 26 | 39 | 13 | 10 | 150 |
| #songs | 10 | 4 | 13 | 14 | 3 | 4 | 7 | 18 |
| #mixes | 98 | 40 | 111 | 116 | 21 | 23 | 42 | 181 |
| #evaluations | 1444 | 310 | 1129 | 639 | 805 | 236 | 310 | 4873 |
| #statements | 4227 | 585 | 2403 | 1190 | 2331 | 909 | 1051 | 12696 |
| #words/comment | 13.39 | 11.76 | 11.32 | 12.39 | 18.95 | 31.94 | 25.21 | 15.25 |
| Male/female | 28/5 | 7/1 | 18/3 | 14/12 | 33/6 | 13/0 | 9/1 | 122/28 |
| Loudspeakers/headphones | LS | HP | LS | HP | LS | LS | LS | |



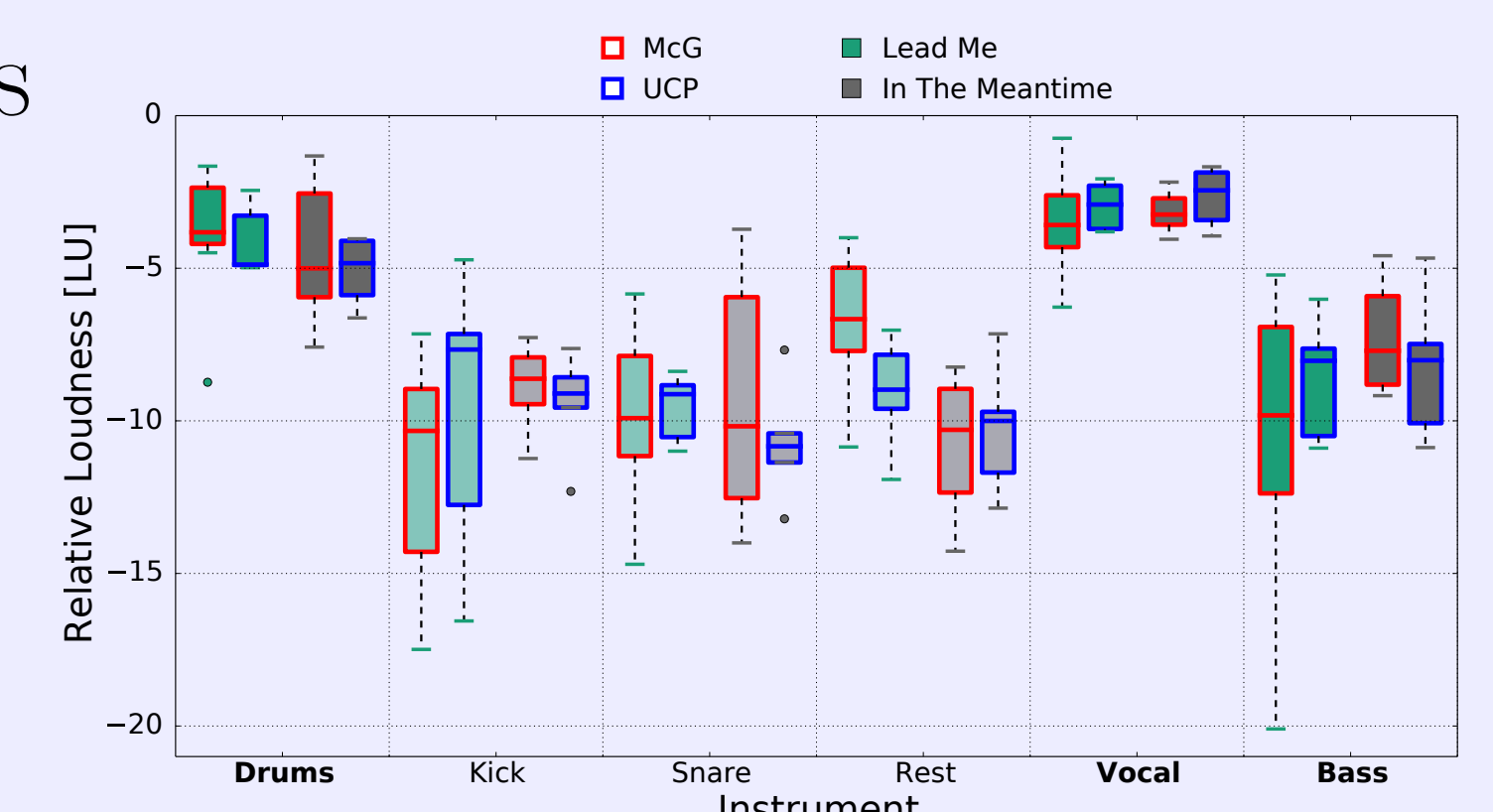
Example listening test interface
(Web Audio Evaluation Tool)



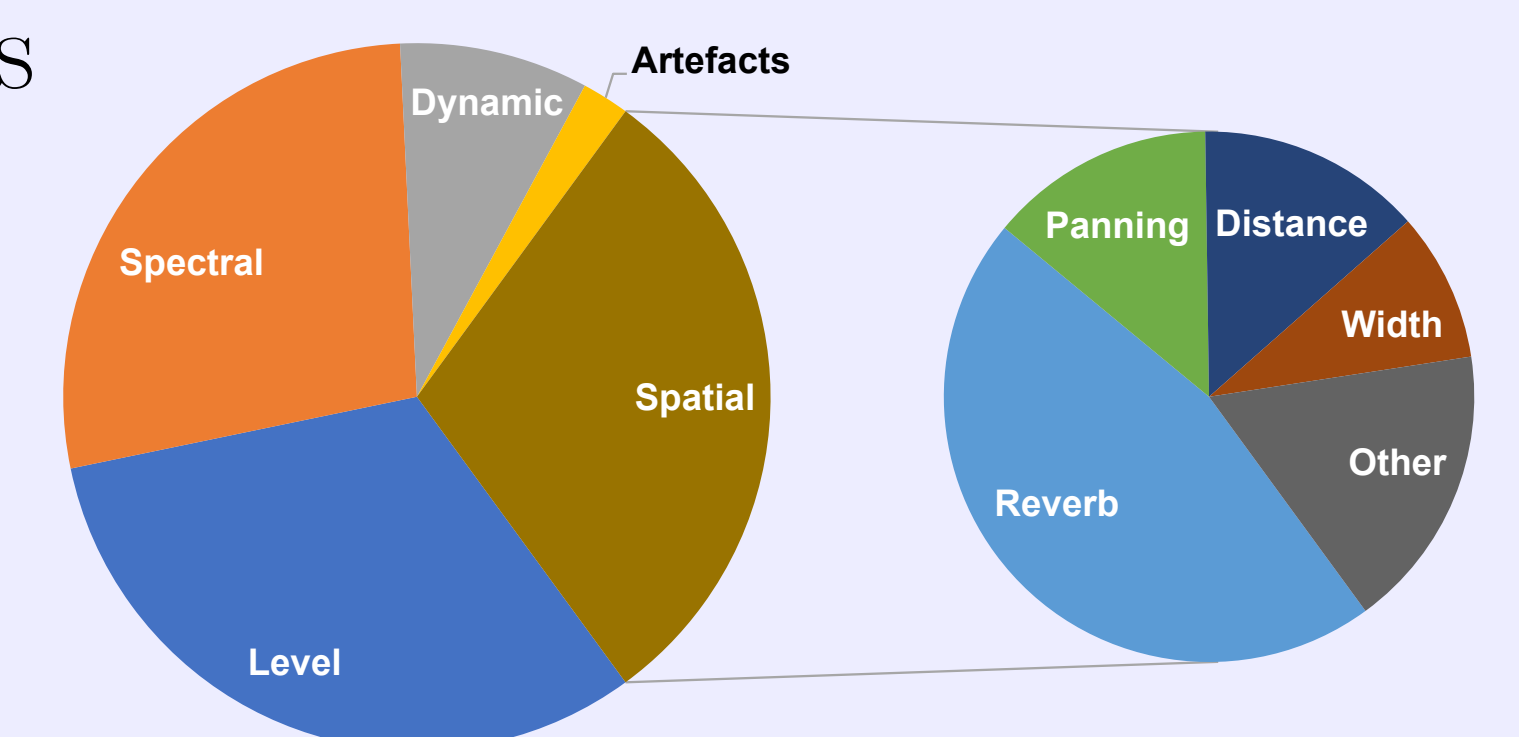
The Mix Evaluation Dataset browser interface

3 Applications

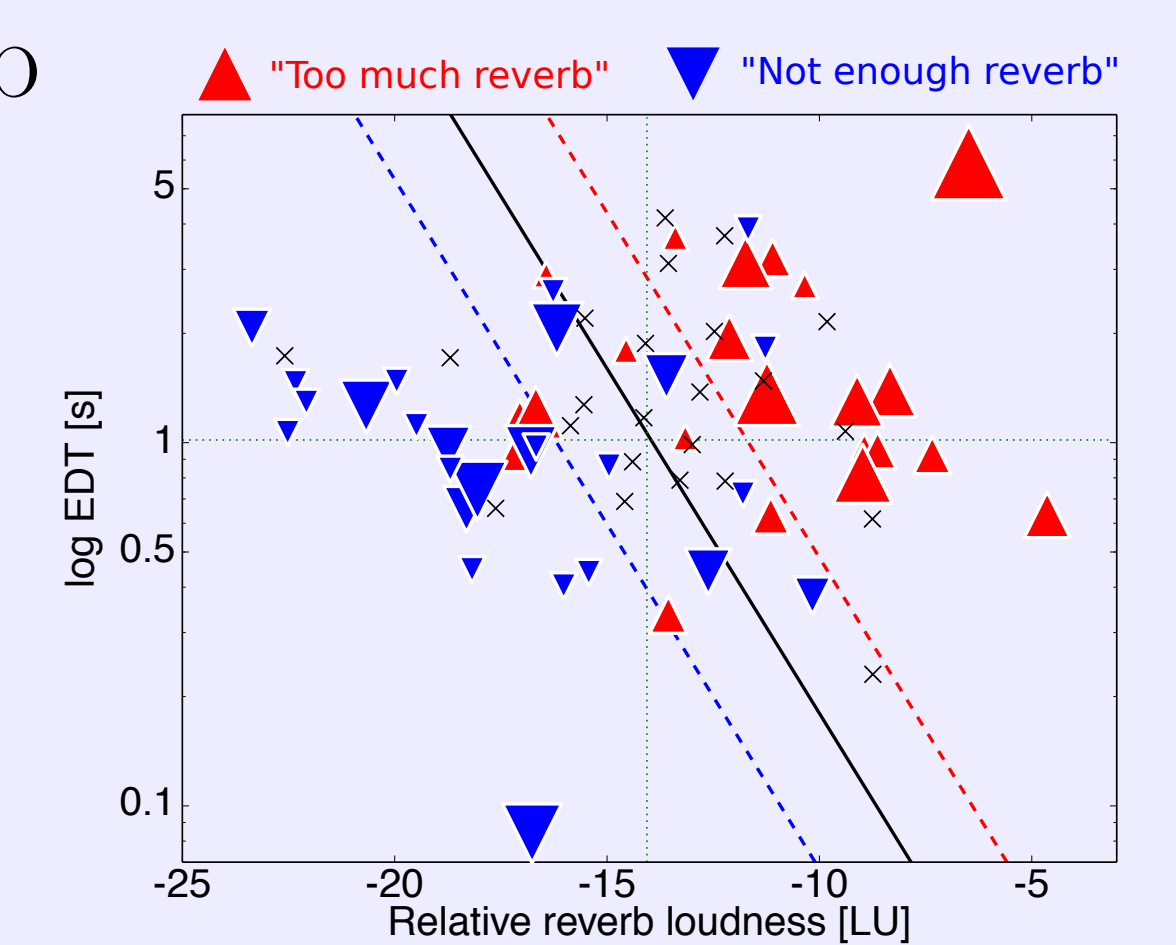
- Audio feature analysis (De Man 2014)



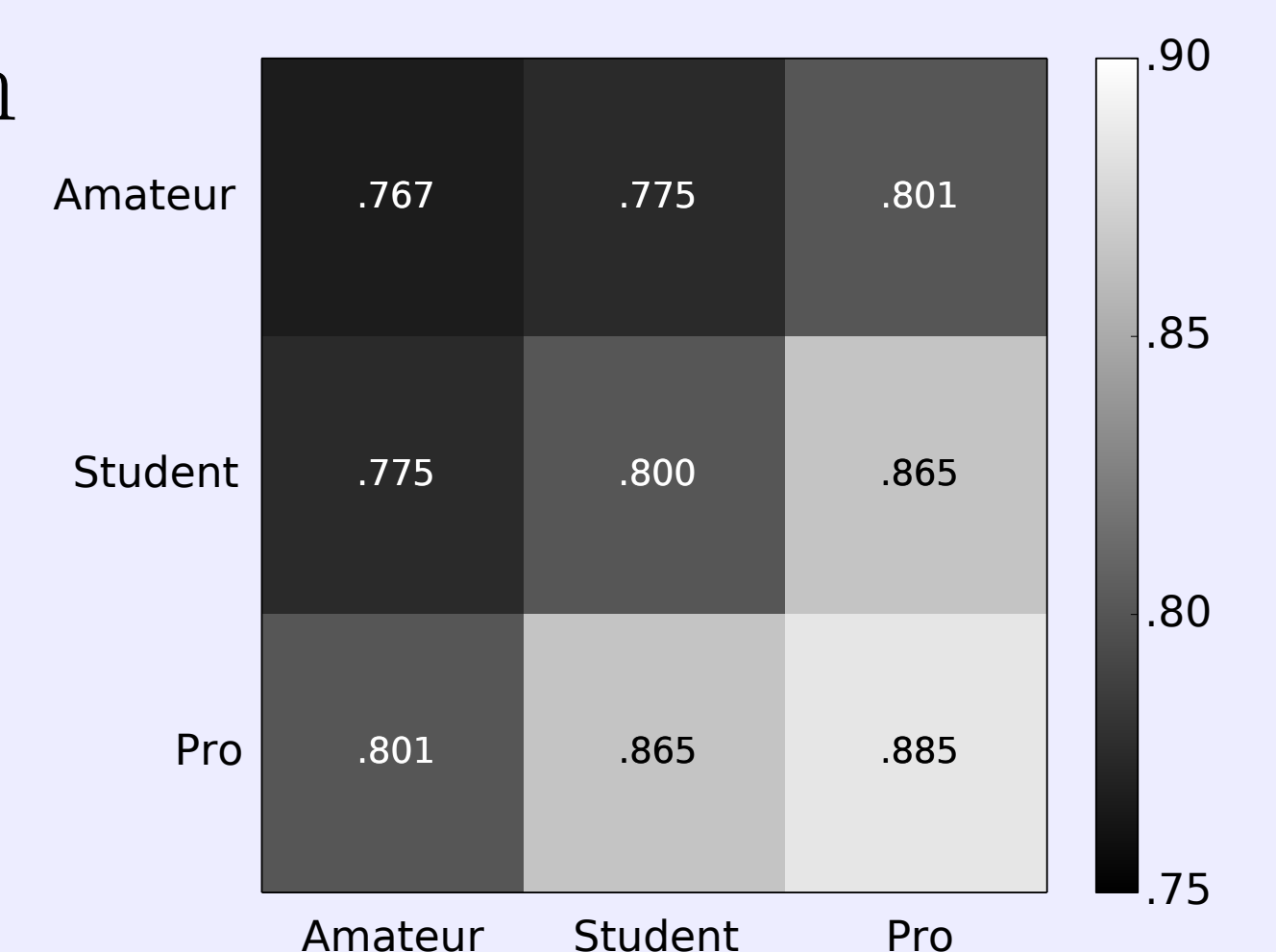
- Impact of features on preference (De Man 2015)
- Comment analysis (De Man 2015)



- Subgrouping practices (Ronan 2015)
- Use and perception of reverb (De Man 2017)



- Impact of expertise on agreement of statements



- Peer reviews relevant to educators and students
- ...?

4 Contribute

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- Donate multitrack audio
- Create mixes
- Participate in listening tests