Rethinking Action-Sound Couplings: DeepGuitar

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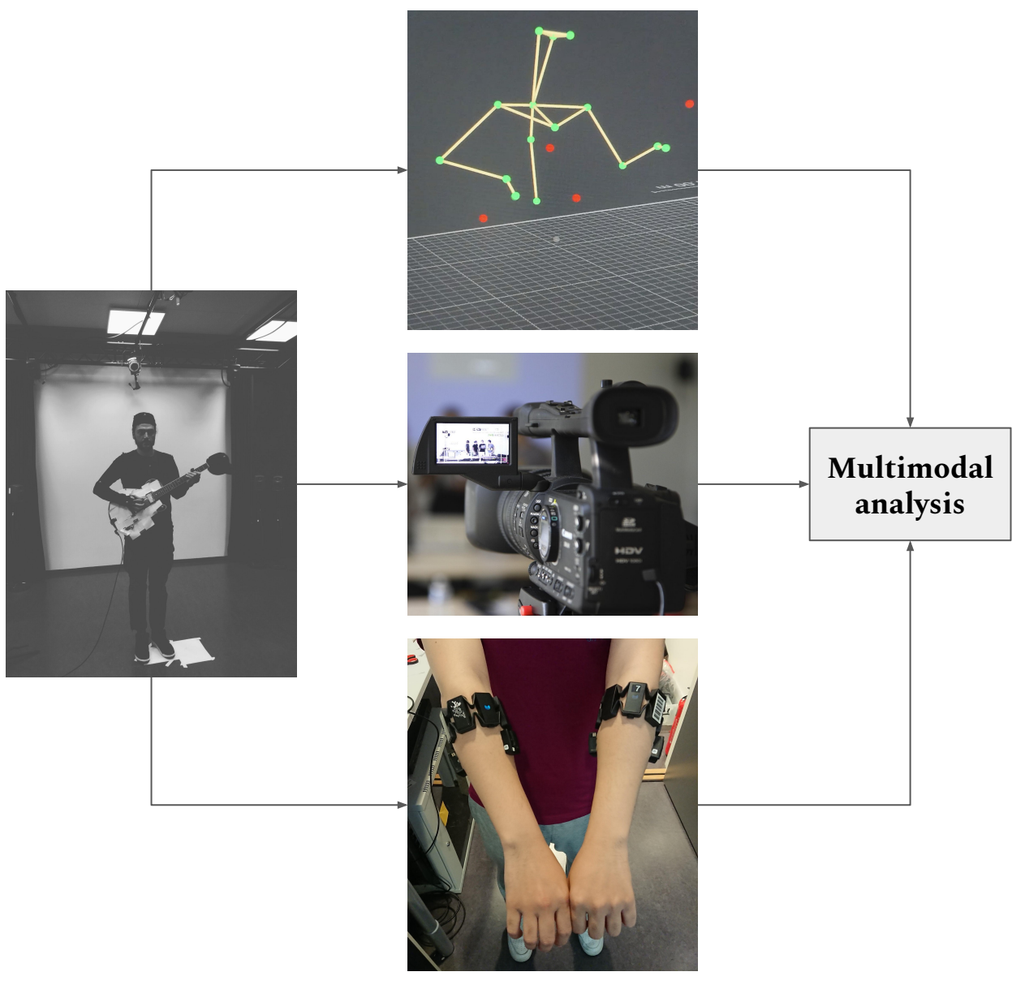
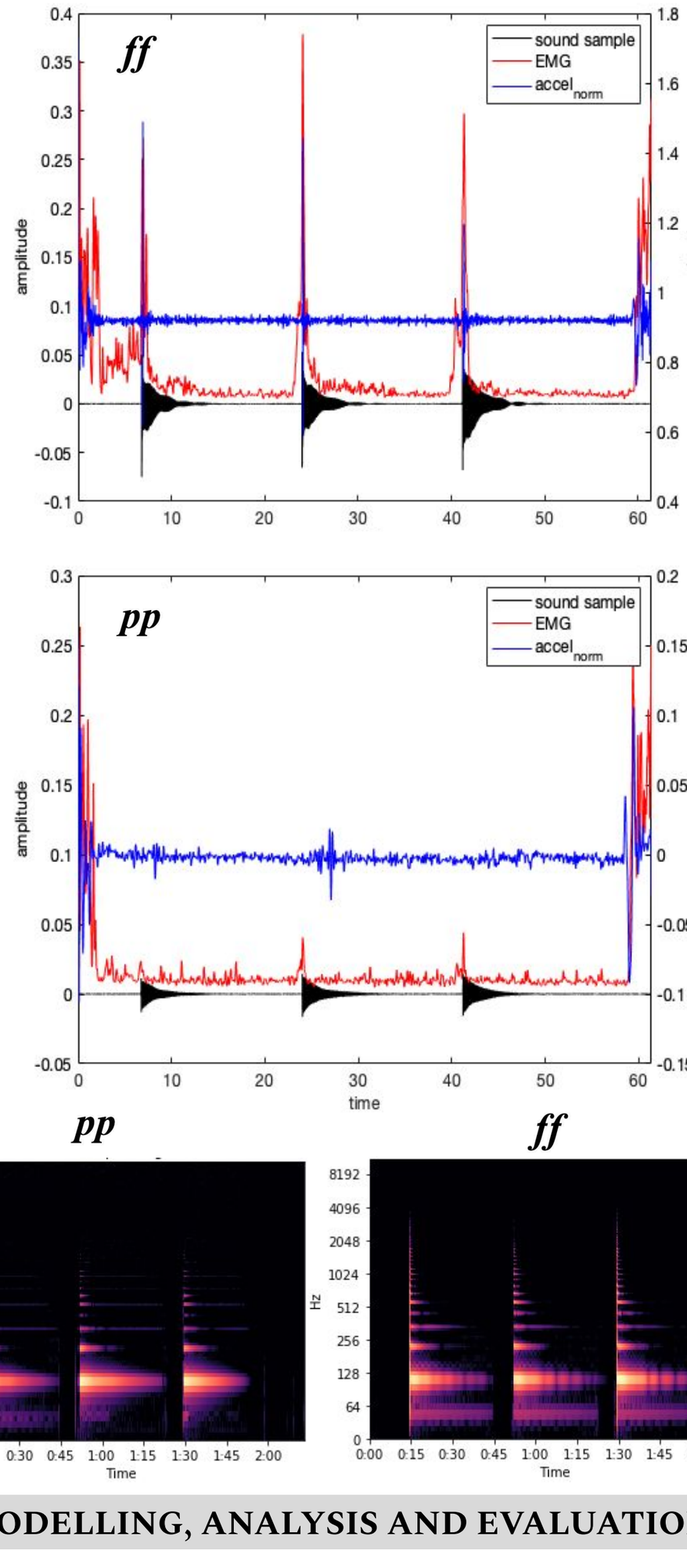
MOTIVATION & RESEARCH QUESTIONS

- Force–sound relationships
  - How does the exerted **force** influence the spectro-temporal features of physical onsets on the electric guitar?
  - Do we observe **similarities** in the muscle activation patterns among a variety of players?
  - What are the **typological** differences between the excitation and modification actions in terms of the exerted force?
- Human–machine collaboration
  - What can a **deep neural network** learn from the action-sound couplings on acoustic instruments?
  - How can we find **new action-sound relationships**, using deep neural networks with a muscle activity dataset?
  - How can we establish an embodied interaction with the AI in the context of **hyperinstruments**?

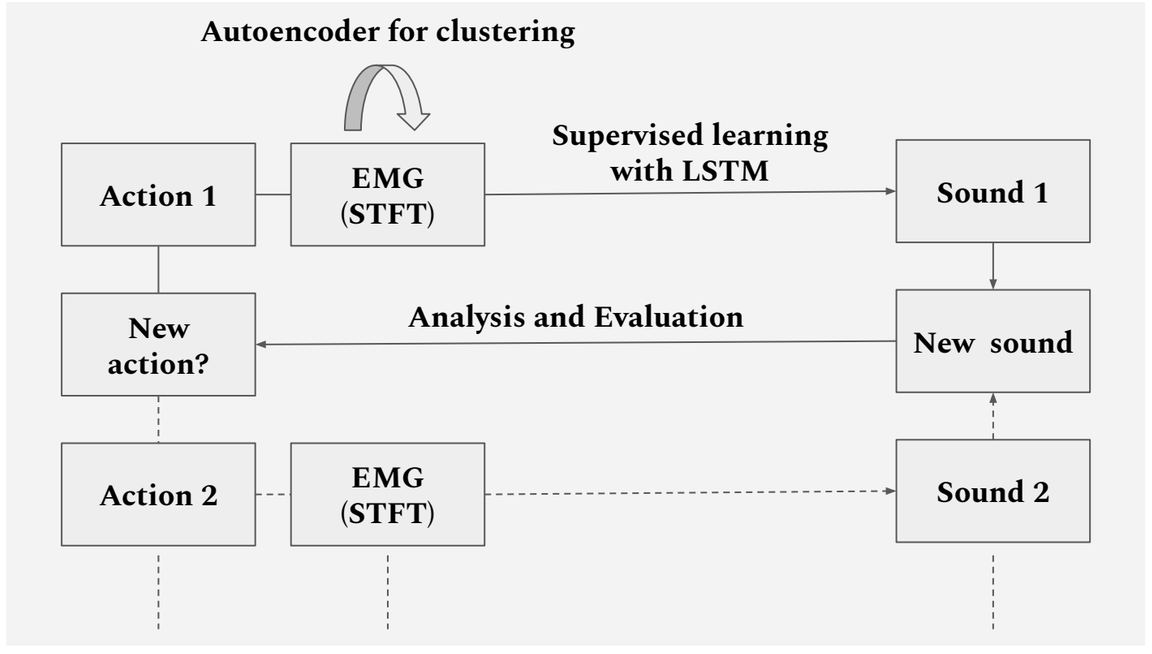
DATA GATHERING



PILOT RECORDINGS



MODELLING, ANALYSIS AND EVALUATION



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