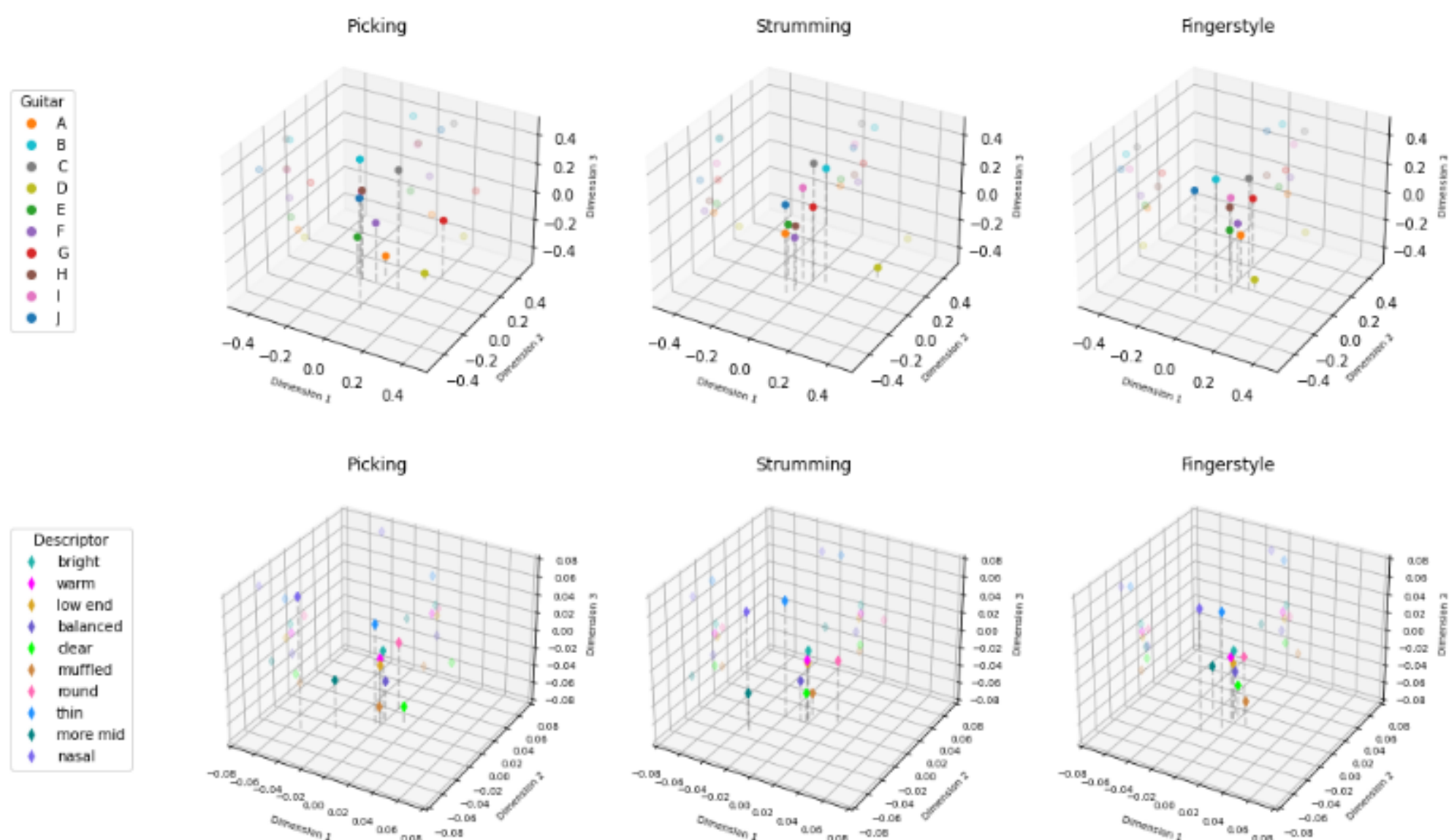# Timbre Transfer For A Smart Acoustic Guitar

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Finding

Perception of acoustic guitar timbre seems to have a dependence on musical context such as playing style and playing techniques. Listeners tend to prefer the timbre of acoustic guitars which sound 'rich' and 'round', while disliking timbres which sound 'hollow', 'high passed' and 'sharp'.

Question

How can we encode acoustic guitar audio into an encoding which specifically contains information on playing techniques as well as notes and velocity?