

Introduction

Prosody segments the flow (gestural and sound) in **Prosodic Groups** (PG) and organizes information (Tang et al. 2010; Sandler 1999).

Sign languages prosodic parameters: duration, amplitude and velocity of the movement. They apply to articulators and combine with each other and build rhythm, intonation, stress (Adamo-Villani and Wilbur, 2015; Blondel and Le Gac, 2007; Wilbur, 1999; Wilbur, and Malaia, 2018; Wilbur and Martinez, 2002).

Prosodic boundaries in Sign Languages: labialisation, breaks, holds, torso and hip rotation, facial expressions (Boyes-Braem, 1999; Sandler, 1999).

Does the LSF prosodic organization have an impact on its spoken French translation in a poetic context?

Aims of this study:

- To identify and to characterize the components of Prosodic Groups in a Sign Language poetic register;
- To determine how these components segment the gestural flow and organize information;
- To examine whether these Prosodic Groups are also present in the translation of poems in spoken French.

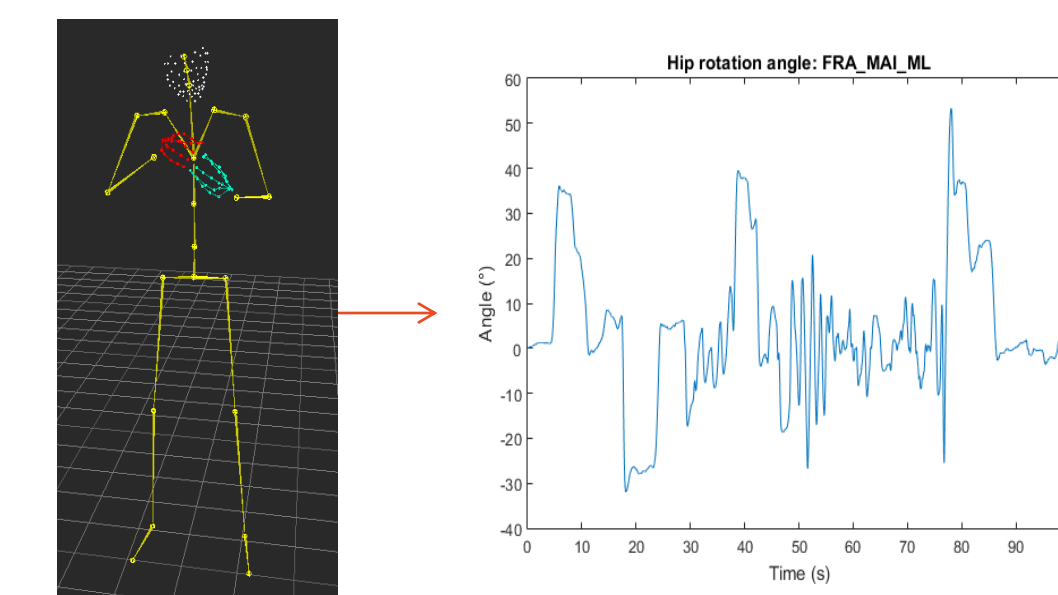
Methodology

11 poems in LSF from 5 deaf French artists and 56 spoken French translations by 9 expert poetic translators

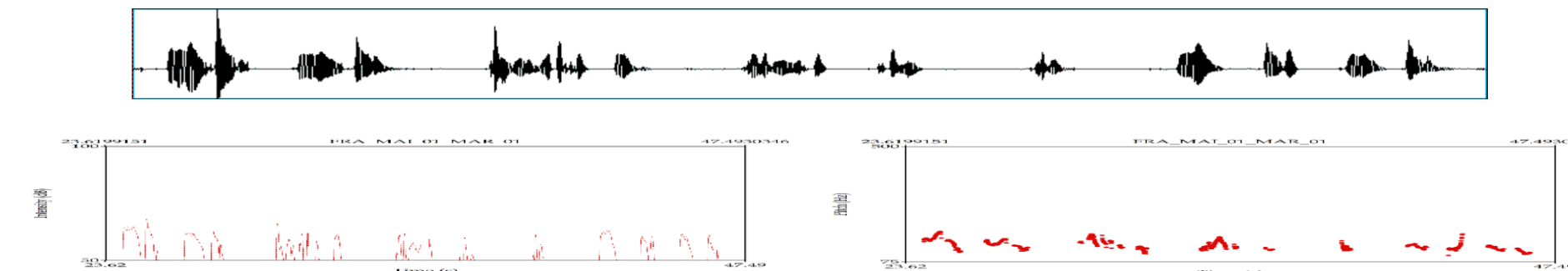
1) Manual annotation



2) Visualization of biomechanical data



3) Acoustic analysis of the translations' waveform



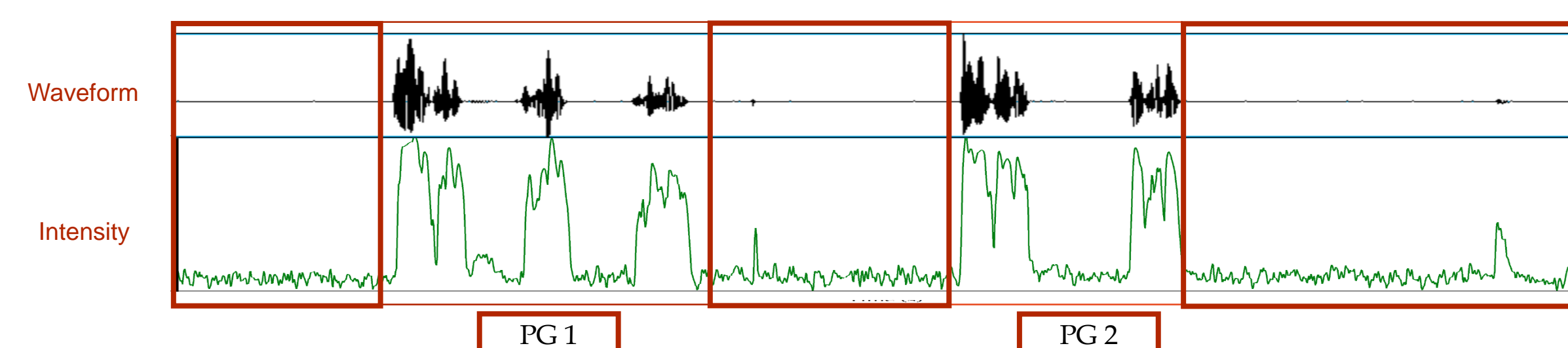
Analysis

Poems in LSF

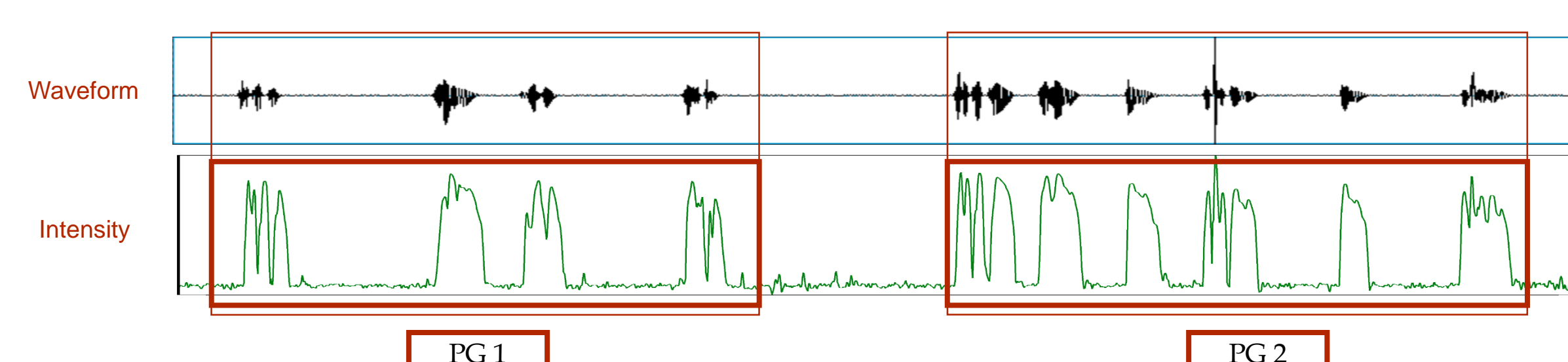


Spoken French translations strategies

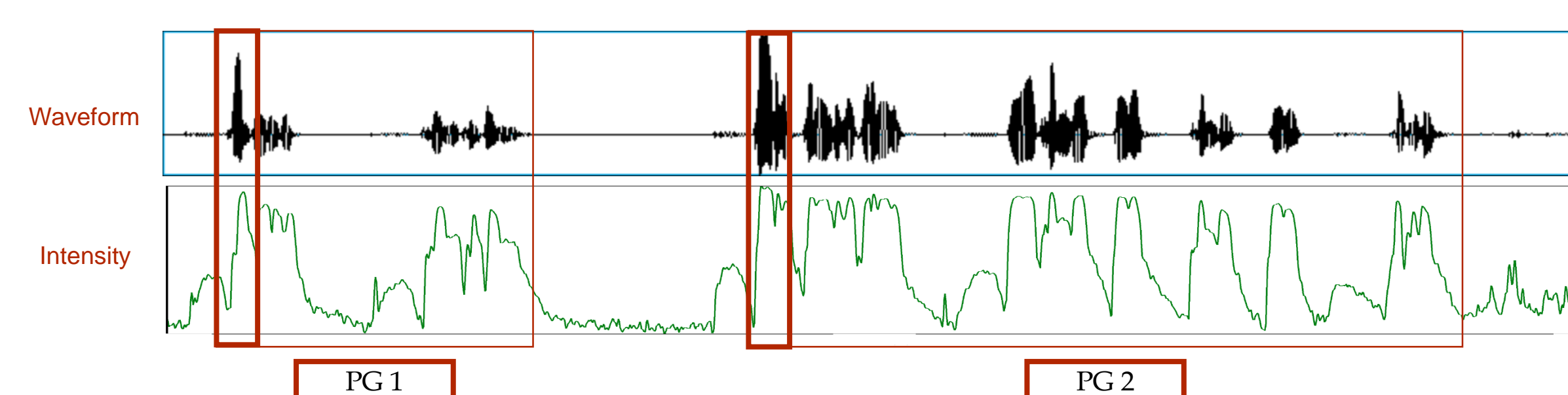
1) The breaks (from Jérémie Ségouat's translation)



2) The rhythmic patterns (from Aurore Corominas' translation)



3) The intensity peaks (from Vincent Bexiga's translation)



Conclusions and perspectives

- ◆ In poetry, the prosodic organization of LSF influences its French translations
- ◆ Three types of strategies have been identified and can be combined to make prosodic groups reappear
- ◆ Manual amplitude and hip rotation are elements that organize the gestural flow into prosodic groups.
- ◆ Thanks to motion capture and results obtained in this study we are taking a step further towards semi-automatic annotation of sign language.
- ◆ A more detailed exploration of data will likely make it possible to identify other strategies used by translators.

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