

Streamlining the processing of F0 data using the R package 'intonation'

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Description: In this tutorial, attendees will learn how to process fundamental frequency (F0) data using the R package 'intonation' (<https://github.com/usagi5886/intonation>), which itself draws upon the PraatR platform. By using these tools, the whole data analysis workflow - from the original soundfiles to the ultimate statistics and plots - can be completed entirely within the R environment. Specific topics to be covered include:

- 1) plotting waveforms and spectrograms,
- 2) marking segmentation labels,
- 3) creating and importing files containing F0 tracks,
- 4) producing high-dimensional visualizations of F0 data to separate out signal vs. noise,
- 5) (semi-)automatically determining F0 ranges, and
- 6) calculating and plotting non-linear 'stylizations' of F0 contours.

By working hands-on with an actual dataset (included in the accompanying materials) and simulating the analysis workflow, the emphasis of the tutorial will be on equipping attendees with the necessary skills to immediately apply these skills to their own data.

Format: The tutorial will consist of three segments:

- The first 30 minutes (9:00-9:30 AM) will be reserved for giving attendees individualized help installing the relevant software. Installation instructions are available at the URL linked above, so participants who can successfully install everything on their own can skip these first 30 minutes and just come at 9:30.
- The core of the tutorial runs from 9:30 to 11:30 AM (two hours), broken down into several smaller blocks.
 - During each block, participants can raise their hands for technical assistance if they encounter a problem. The assistant will move from person to person as needed and help troubleshoot the problems that participants have.
 - Between blocks, there will be short breaks for participants to try out what they learned, ask questions, and catch up.
- After the core of the tutorial finishes, both the presenter and the assistant will be available for an additional 30 minutes (11:30 AM - 12:00 PM) to answer any additional questions and offer personalized assistance about how to apply the skills learned in the workshop to participants' individual research projects.

Target Audience: In order to be able to keep up with the pace of the workshop, attendees are expected to have already basic familiarity with using R. This is the only requirement – participants are anticipated to range from graduate students to experienced researchers, working on a wide range of prosodic phenomena.

Technical requirements: Participants should bring a Windows, Mac, or Linux laptop computer running a fairly recent version of R. Also, during the tutorial, Internet access will be necessary.