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24.910 Topics in Linguistic Theory: Laboratory Phonology  
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### **Measuring Vowel Formants: Due 3/20**

The goal of this assignment is to measure the formants of the stressed vowel phonemes of your native language.

This involves four steps:

1. Identify the contrasting stressed vowels in your language, and draw up a list of words illustrating these vowels. Preferably the vowels should be in similar segmental contexts – i.e. the ideal would be a minimal set differing only in vowels. Usually the ideal is not achievable, but keep it in mind. You may want to consult descriptions of your language to find out what the vowel phonemes are supposed to be, and perhaps even a list of words illustrating them. Good sources include grammars and language descriptions in the Journal of the International Phonetic Association (available in the Humanities library and online). Ask me if you need help locating sources.
2. Make a recording of yourself reading these words. I suggest you team up with a classmate to record each other.
3. Measure the formants in the vowels. In general we measure vowel formants at:
  - the steady state of the vowel (i.e. where the formants remain relatively unchanged) if there is one
  - otherwise at the extreme value of one of the formants,
  - or, if the formants are in steady transition throughout the vowel, at the temporal mid-point of the vowel.
4. Plot the vowels on an F1-F2 graph, preferably with axes reversed. Excel will allow you to do this (click on the axes to see the options).