

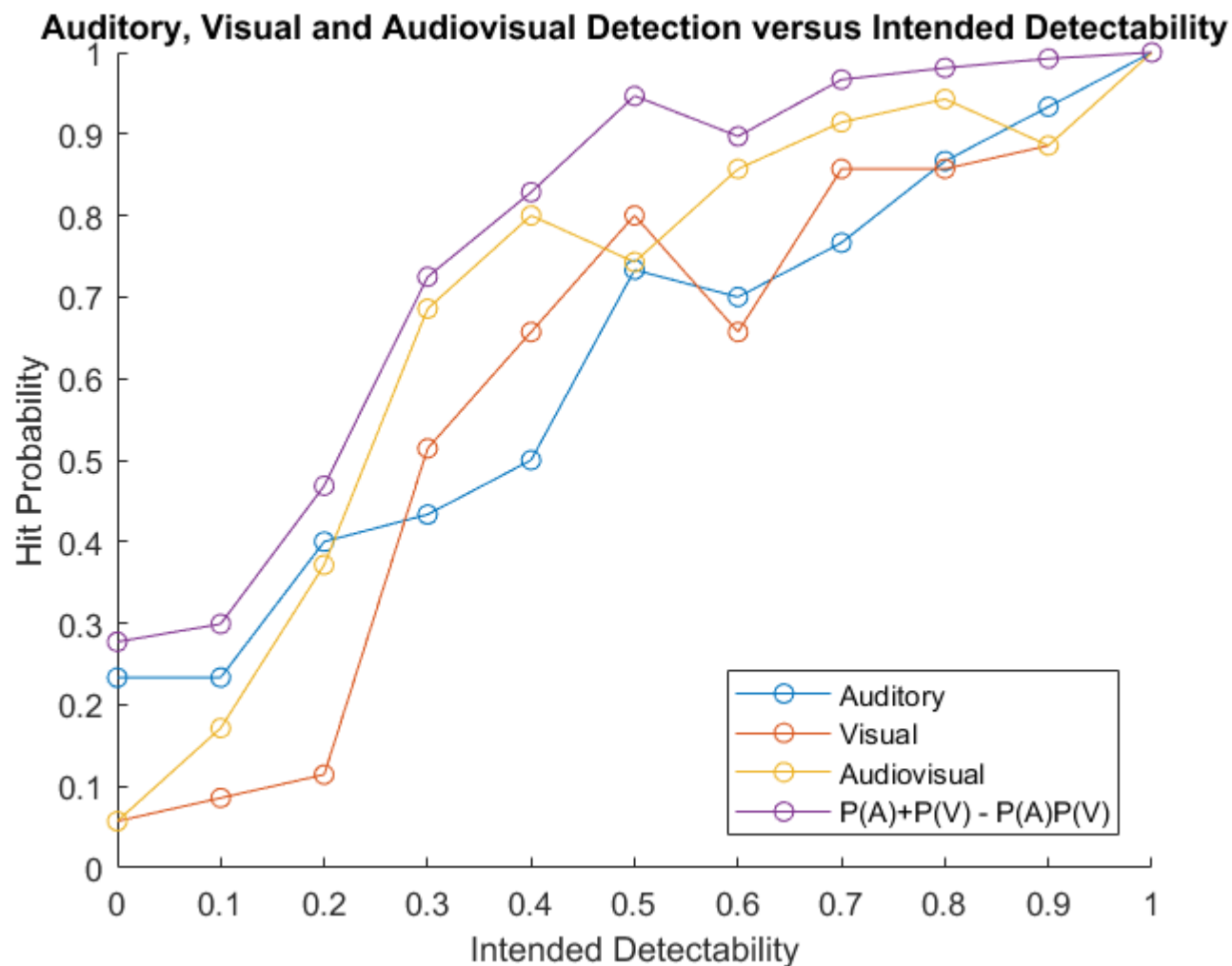
# SMART-IE Behavioral Pilot Data Group Averages & Models

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# Experiment Set-up

- Initial titration phase and testing done on the same day.
- 11 Points Tested. (0, 10%, 20%, 30%, ..., 100%)
- 50 repetitions of each stimulus
- Total experiment time with no EEG: 2 and a half hours to 3 hours
- We're currently struggling with an auditory glitch that caused auditory to be distorted ~halfway through an experiment for two of the five data sets. These data sets had the affected portion of the experiment discarded.

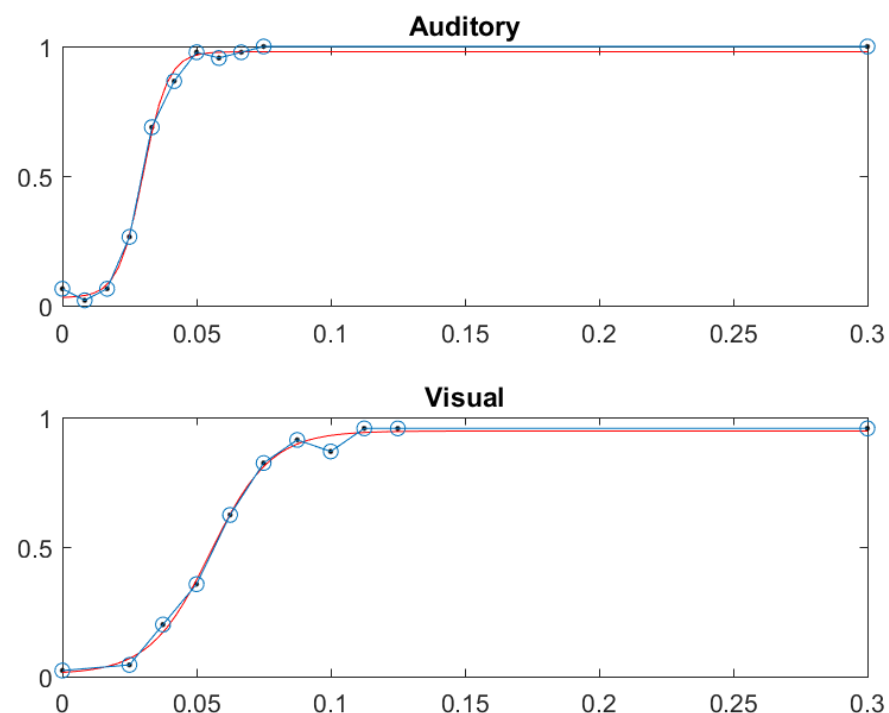
# Subject 1



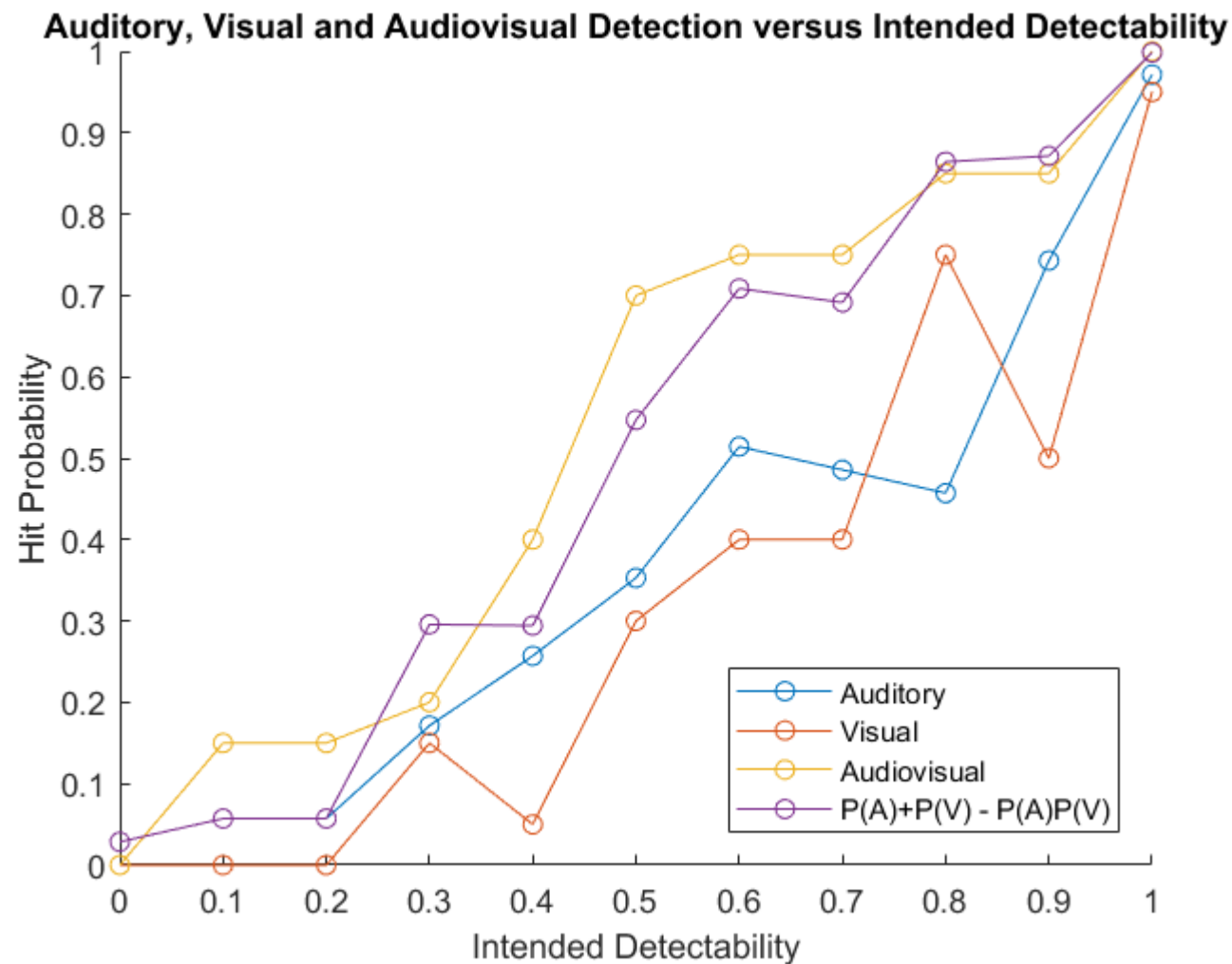
## Auditory Glitch

Salvaged Data:

- 30 reps of each auditory stimulus
- 25 reps of each visual stimulus
- 35 reps of each audiovisual stimulus



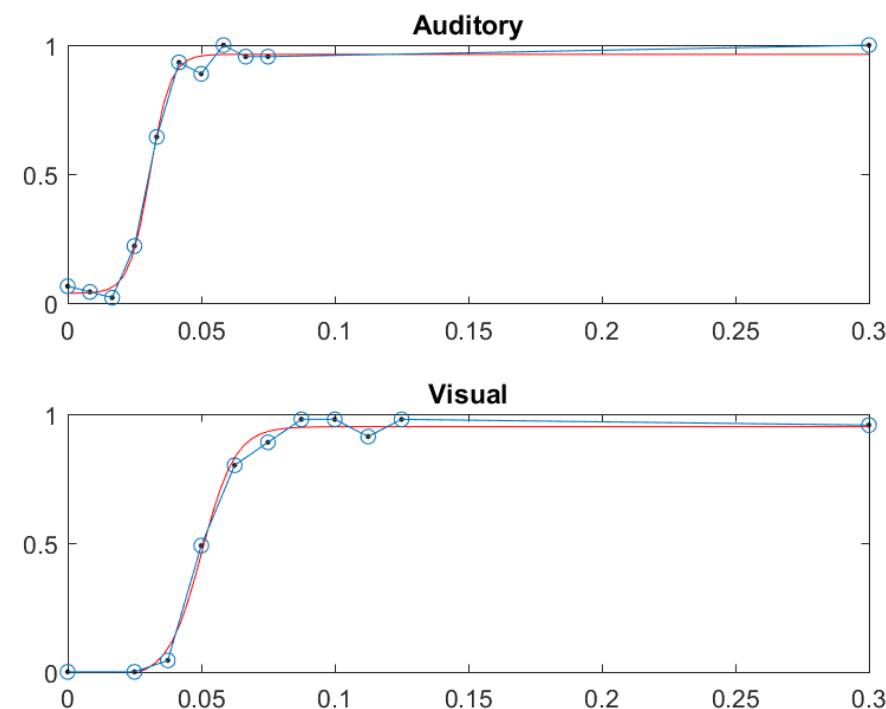
# Subject 2



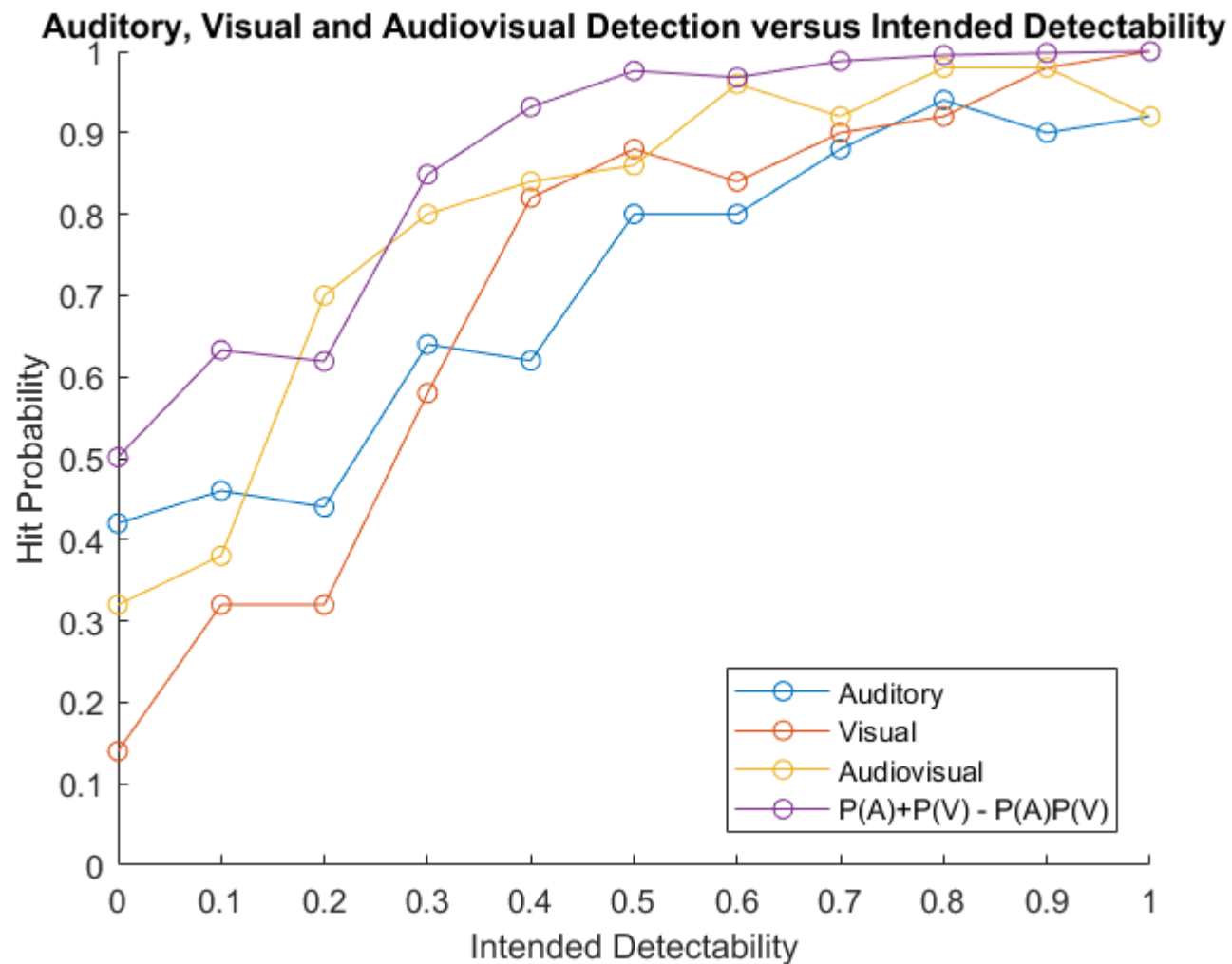
## Auditory Glitch

Salvaged Data:

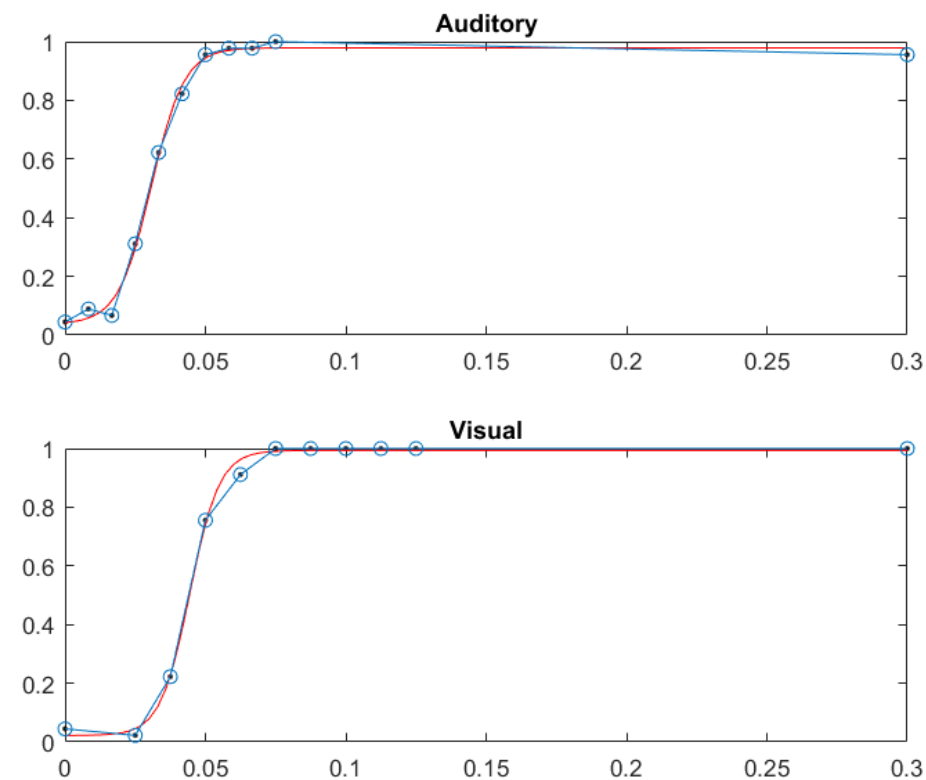
- 30 reps of each auditory stimulus
- 20 reps of each visual stimulus
- 20 reps of each audiovisual stimulus



# Subject 3

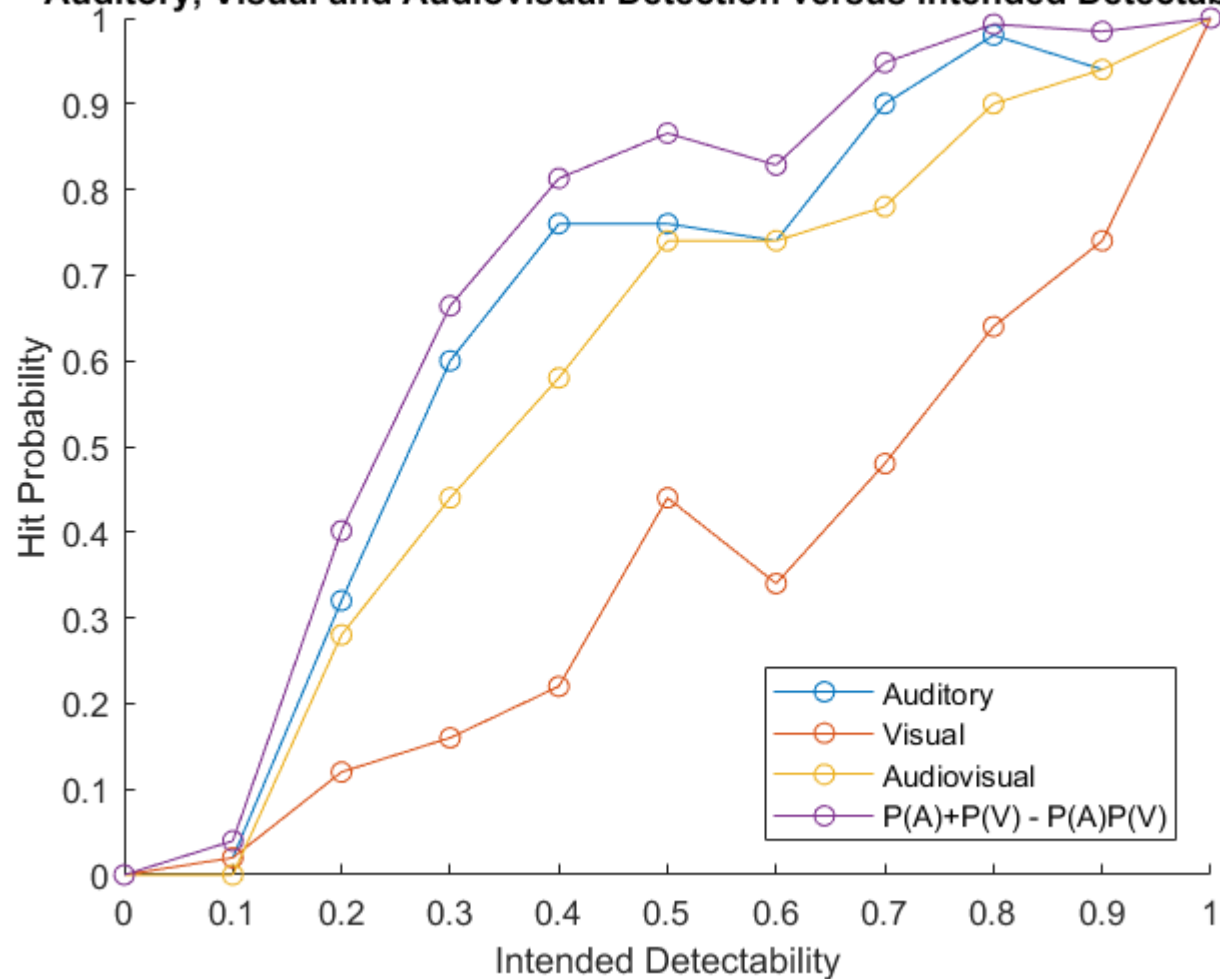


No Auditory Glitch  
50 reps of each stimulus

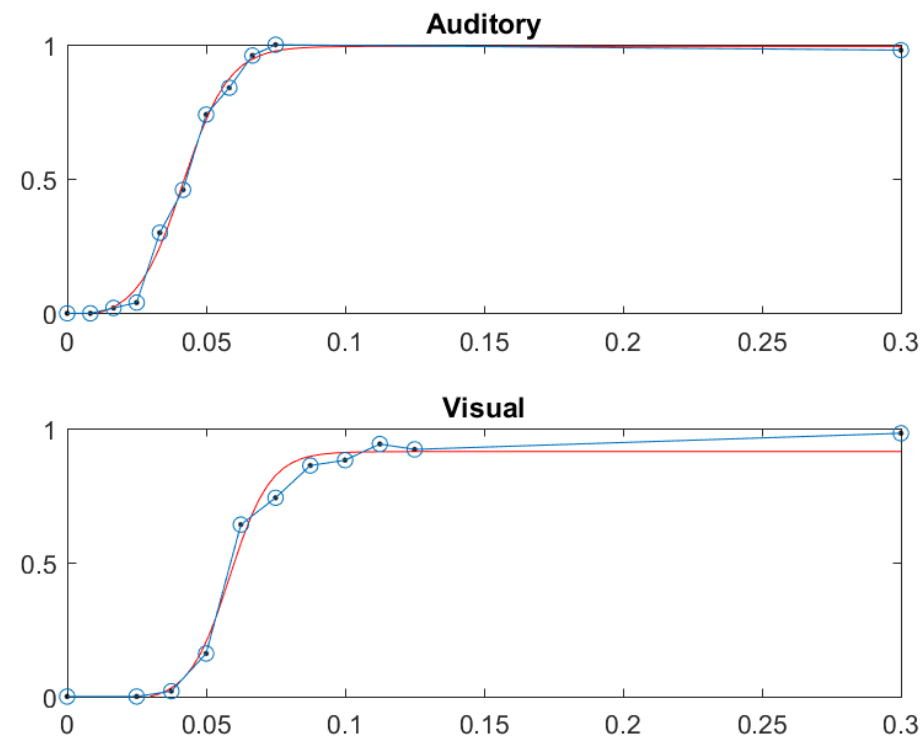


# Subject 4

Auditory, Visual and Audiovisual Detection versus Intended Detectability

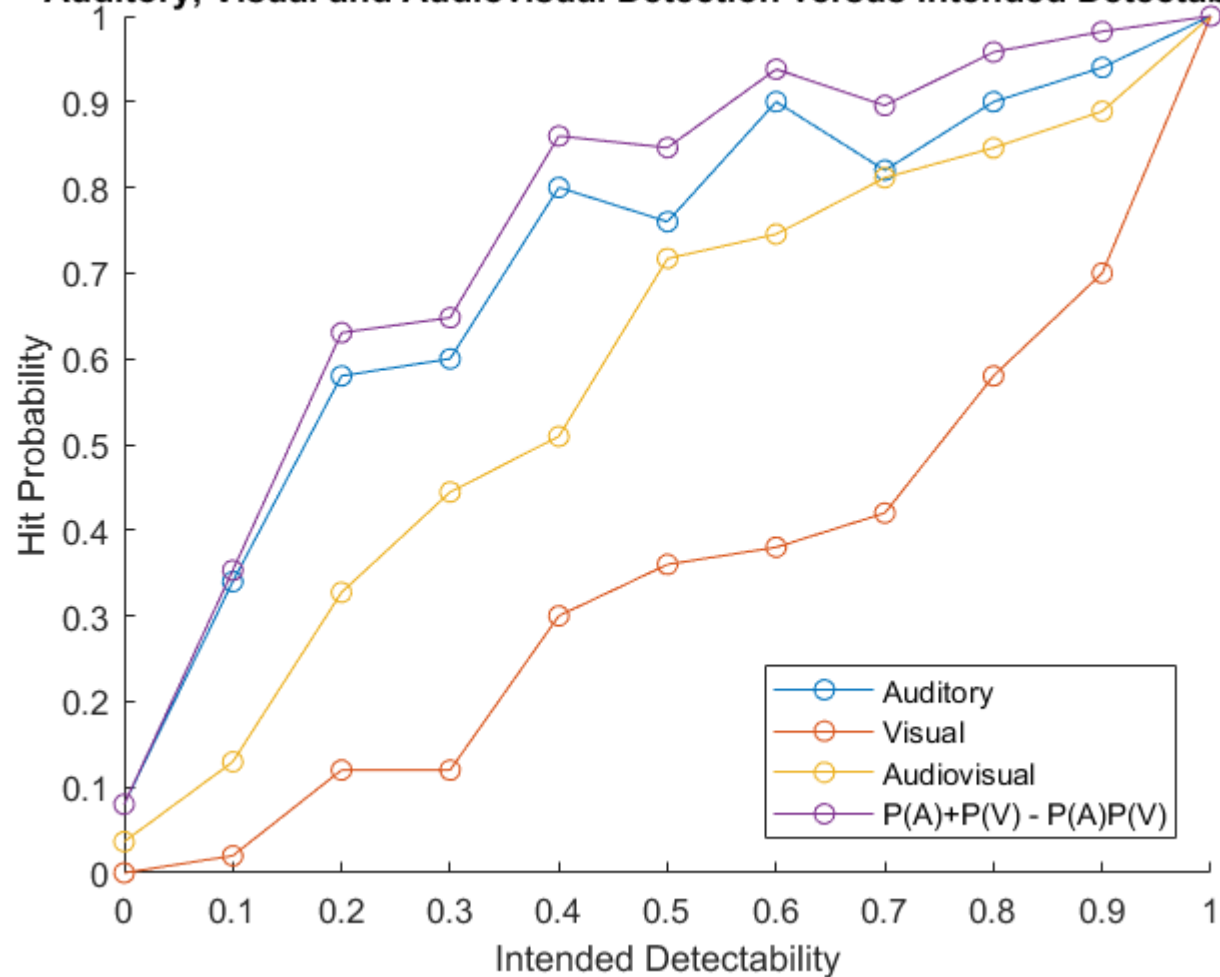


No Auditory Glitch  
50 reps of each stimulus

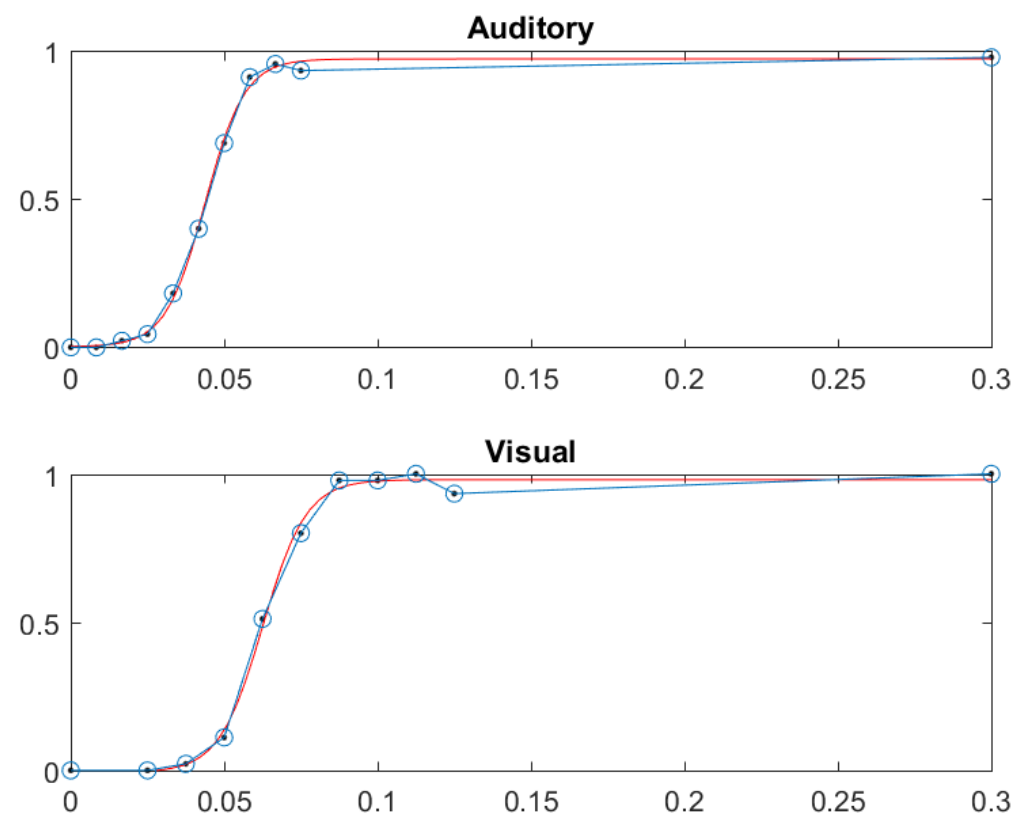


# Subject 5

Auditory, Visual and Audiovisual Detection versus Intended Detectability



No Auditory Glitch  
50 reps of each stimulus



# Summary

Behavioral Prediction Model:  $P(A) + P(V) - P(A)*P(V)$

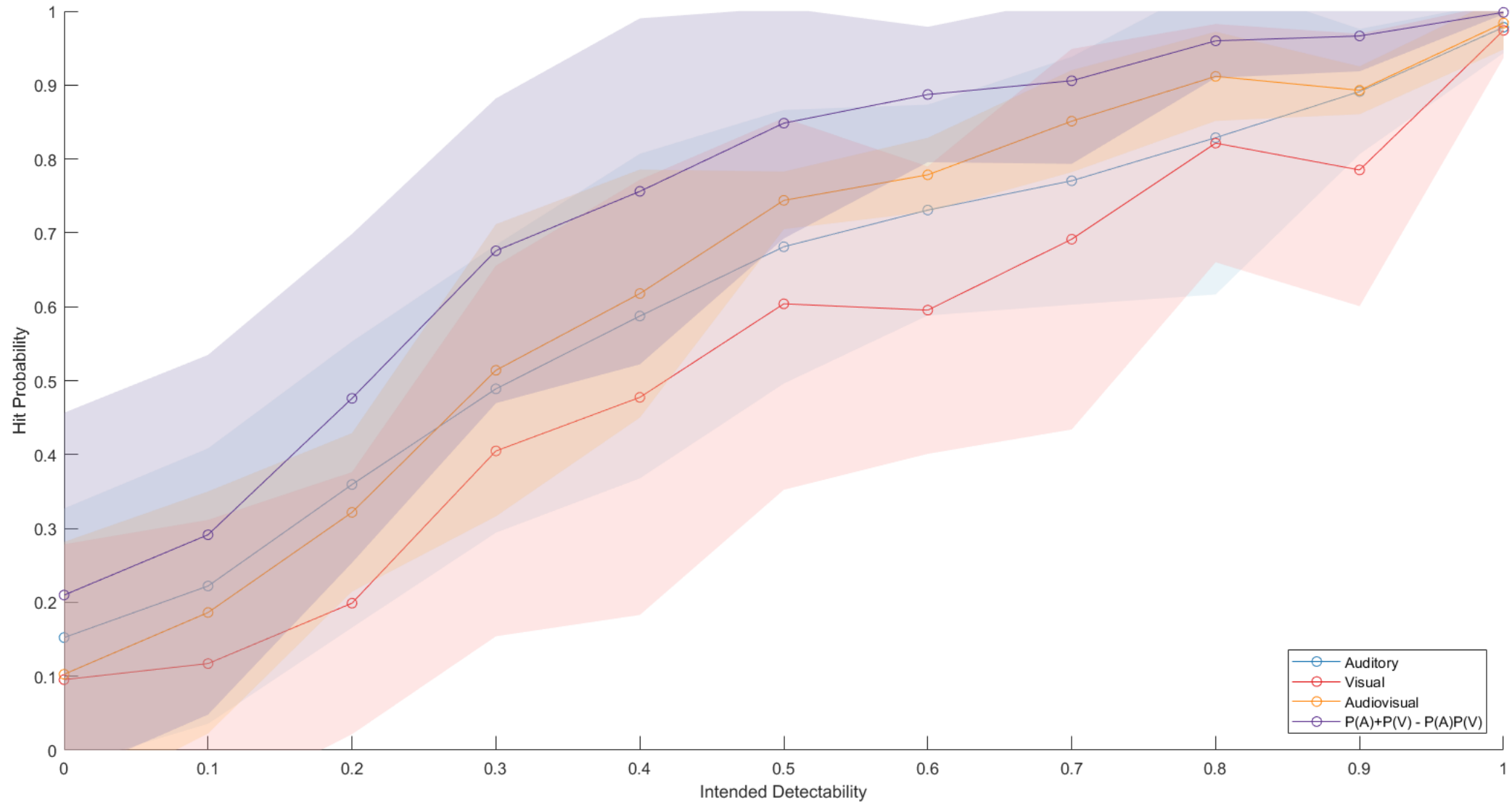
3/5 participants' audiovisual curve never surpassed probability summation model.

1/5 participants' audiovisual curve had one point that surpassed the model.  
(subject 3)

1/5 participants' audiovisual curve was consistently higher than the probability summation model. (subject 2)



# Group Mean $\pm$ STD



# Group Mean $\pm$ SEM

