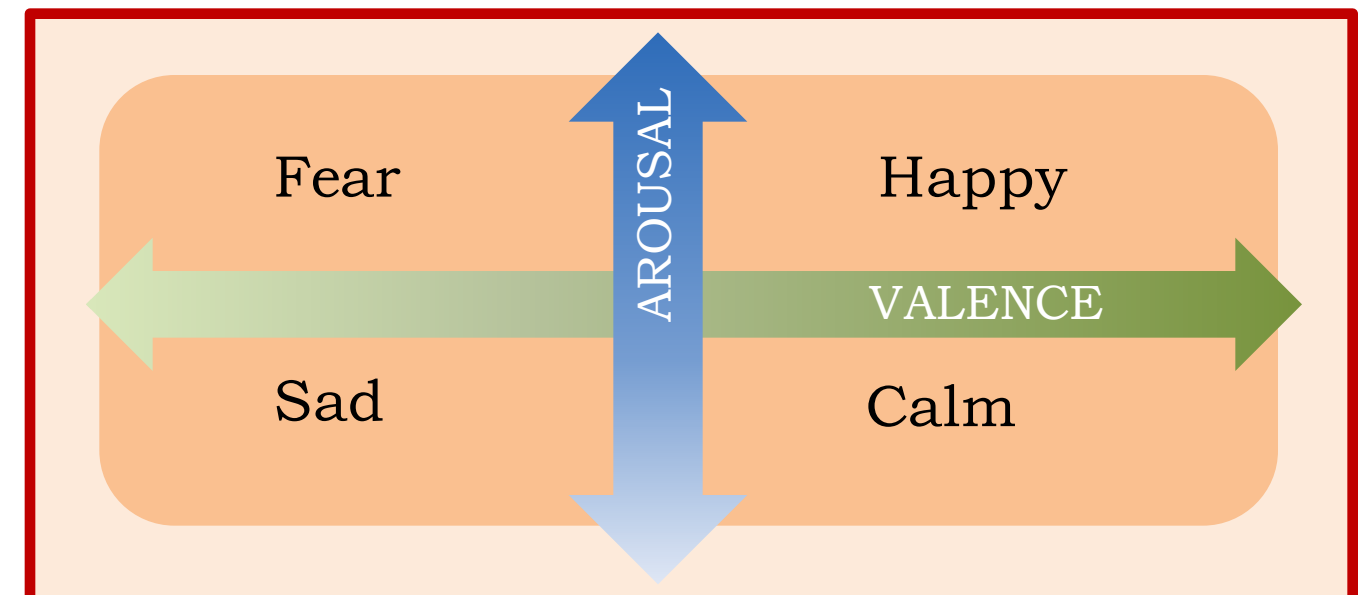


# Knowledge Transfer and Boosting Approach to prediction of affective dimensions in movies

Sabyasachee Baruah, Rahul Gupta, Shrikanth Narayanan  
Speech Analysis and Interpretation Laboratory

## Problem Statement & Motivation

- Valence - Positivity/Negativity of Emotion
- Arousal - Intensity of Emotion
- Predict valence and arousal continuously in movies
- Understand the impact of movies

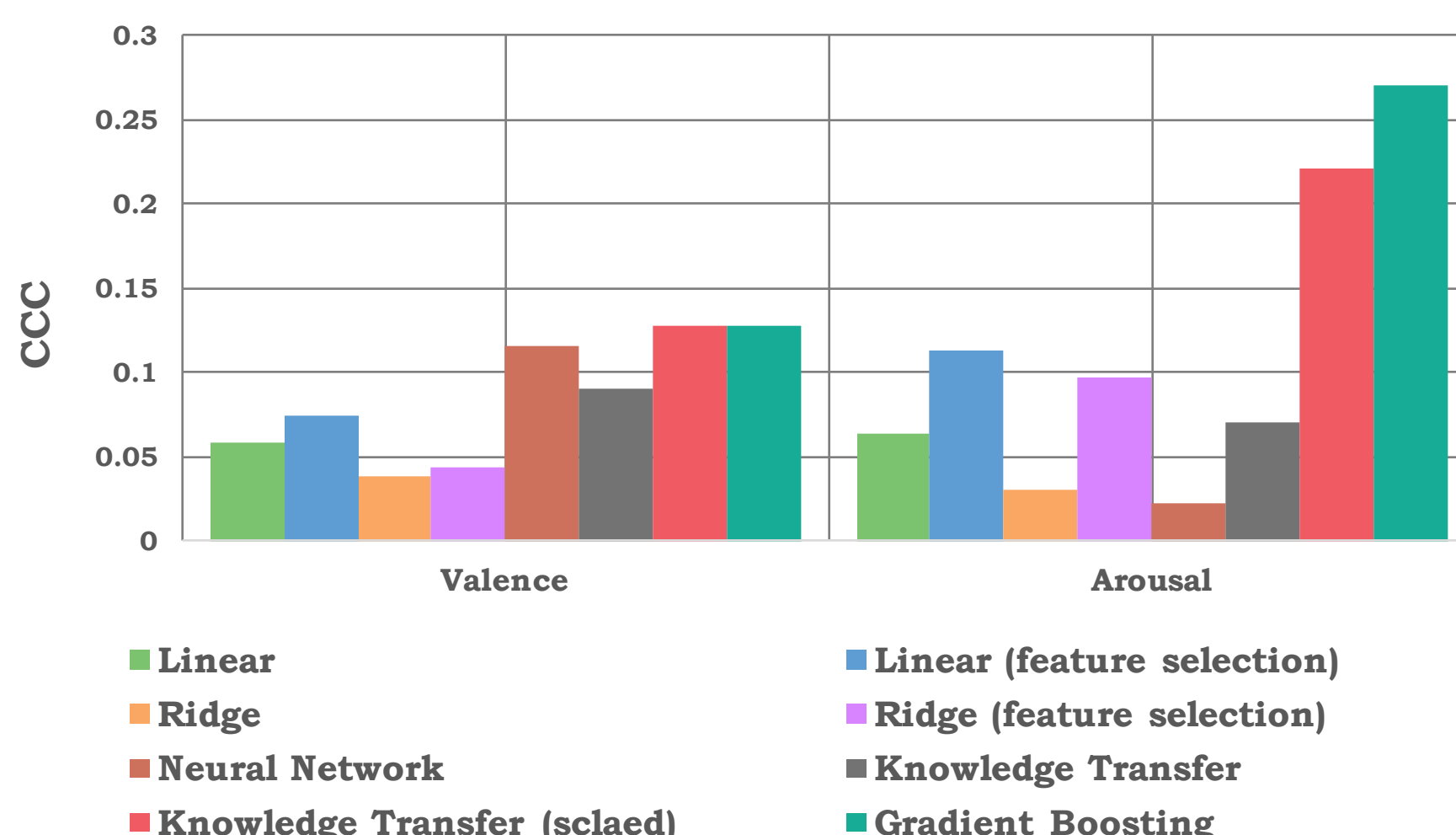
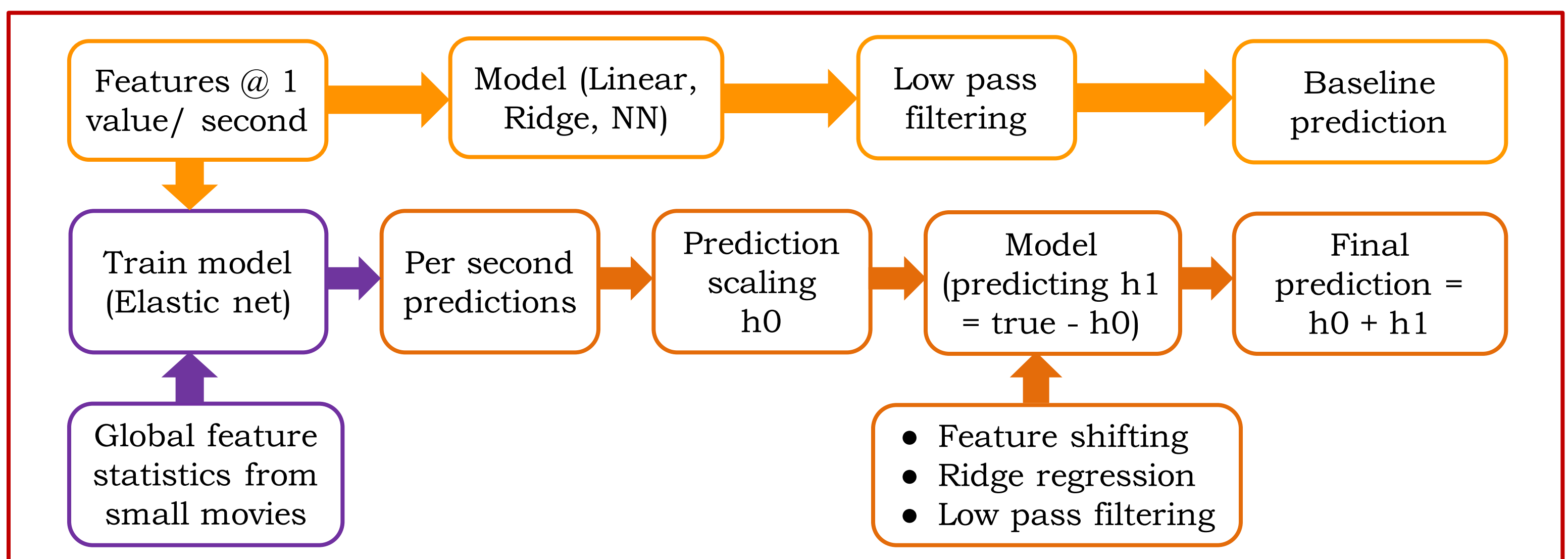


## Video & Audio Features

- luminance
- intensity
- optical flow
- voicing probability
- MFCC +  $\Delta$  +  $\Delta^2$
- zero crossing rate
- harmonic to noise ratio
- musical semitones

## Dataset

- LIRIS Accede Dataset - 30 movies and 9800 videos
- Movies - Per second labels, -1 to 1
- Videos - Global ratings, 1 to 5



## Conclusion

- Linear models perform better for arousal, NN for valence
- Domain transfer improves performance due to variation in movies