

# Accepted Manuscript

Dominant Speaker Detection in Multipoint Video Communication  
Using Markov Chain with Non-Linear Weights and Dynamic  
Transition Window

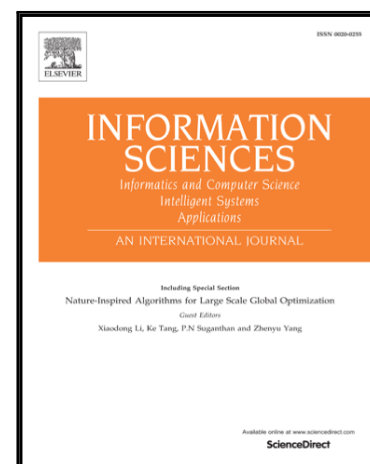
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PII: S0020-0255(16)31343-3  
DOI: [10.1016/j.ins.2018.06.057](https://doi.org/10.1016/j.ins.2018.06.057)  
Reference: INS 13750

To appear in: *Information Sciences*

Received date: 19 October 2016  
Revised date: 15 January 2018  
Accepted date: 24 June 2018

Please cite this article as: Vishnu Monn Baskaran, Yoong Choon Chang, Jonathan Loo, KokSheik Wong, MingTao Gan, Dominant Speaker Detection in Multipoint Video Communication Using Markov Chain with Non-Linear Weights and Dynamic Transition Window, *Information Sciences* (2018), doi: [10.1016/j.ins.2018.06.057](https://doi.org/10.1016/j.ins.2018.06.057)



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**Highlights**

- Markov chain for dominant speaker detection in multipoint video communication.
- Non-linear weights for both initial state vector and transition probability matrix.
- Dynamically modifiable transition probability matrix window/container size.
- Proposed algorithm registers 85% accuracy in predicting a dominant speaker.
- Misclassification of dominant speakers due to transient speech also reduced by 87%.

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