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Semi-Supervised Speech Activity Detection with an Application to Automatic Speaker Verification

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**Highlights**

- We propose a new speech activity detector (SAD) based on semi-supervised learning of Gaussian mixture model (GMM).
- The proposed SAD requires lower amount of data labelled data for initialization as compared to GMM-based approach.
- We have shown improved detection of speech and non-speech frames on NIST OpenSAD dataset.
- The proposed SAD gives promising results compared to other SADs in robust speaker verification task.

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