**Acoustic & speech & signal processing顶会顶刊**

顶刊

APPLIED ACOUSTICS

Signal Processing Letters

IEEE Transactions on Audio Speech and Language Processing

Signal Processing

顶会

ICASSP

INTERSPEECH

WASPAA

IWNEAC

**Database**

Free internet databases

* [**Freesound**](https://freesound.org/browse/): crowdsourcing database

([ref-Freesound: a Platform for the Creation of Open Audio Datasets](database%20research/Freesound_ISMIR2017.pdf), ISMIR2017, citation 73)

优：数据量大；是很多dataset的母数据库

缺点：众包导致音频质量参差不齐；

* [**SoundBible**](http://soundbible.com/)
* [**UrbanSound & UrbanSound8K**](https://urbansounddataset.weebly.com/urbansound8k.html)**: urban sound taxonomy, with baseline**

(ref-[A Dataset and Taxonomy for Urban Sound Research](database%20research/Sound8K_ACMMM2014.pdf), ACM MM2014)

1. 4 top level groups: human, nature, **mechanical**, music
2. 10 low level classes: … gun shot …
3. Based on Freesound
4. UrbanSound8K: a subset of short audios (4s is enough for source identification)
5. Baseline对于纯gunshot的正确率在90%左右（MFCC+SVM）

优：有专门gunshot一类

缺点：基于Freesound

By google

* [**AudioSet**](https://research.google.com/audioset/dataset/gunshot_gunfire.html) **with baseline system**

([ref-AudioSet: an Ontology and Human-labeled Dataset for Audio Events, ICASSP2017, citation 599)](database%20research/Audioset_ICASSP2017.pdf)

1. video + audio

优：数据量最大

缺点：基于视频，需要视音频分离；AudioSet给出的只是Youtube ID；综合性（待调研枪支类数据量

Challenge

* [**DCASE2016**](http://www.cs.tut.fi/sgn/arg/dcase2016/) **with baseline system (MatLab implementation) & ranking**

1. Acoustic scene classification (TUT Acoustic **Scenes**2016)
2. Sound event detection in synthetic audio (Task2)
3. Sound event detection in real life audio (TUT Sound **Events**2016)

([ref-TUT Database for Acoustic Scene Classification and Sound Event Detection](database%20research/TUT_EUSIPCO2016.pdf))

1. Domestic audio tagging: home activity (CHiME-Home)

优：拾取工具较统一

缺点：综合性（待调研枪支类数据量

* [**TRECVID**](https://www-nlpir.nist.gov/projects/trecvid/)**: multimedia event detection**

1. video + audio

缺点：需要音视频分离

* [**ESC**](https://dataverse.harvard.edu/dataset.xhtml?persistentId=doi:10.7910/DVN/YDEPUT)**: environmental sound**

([ref-ESC: Dataset for Environmental Sound Classification](database%20research/esc_ACM%20MM2015.pdf))

1. Constructed from Freesound sound clips

缺点：基于Freesound

**跑分**

**Event detection: state-of-the-art & pipelines**

**Motivation**

1. **与现有的声学事件检测pipeline相比（需要调研），我们针对枪声，长处在哪里，因为general acoustic event detection也可以检测枪声非枪声**