

# Introductions

## Datasets

- MUSDB18 [Zafar et al. 2017]:
  - Compressed version (MUSDB18): 16kHz;
  - Uncompressed version (MUSDB18HQ): 44.1kHz
  - 150 stereo songs (100 for training and 50 for test)
    - bass, drums, other, and vocals tracks
  - Official dataset in many MSS campaigns: SISEC 2018, MDX 2021, ...
- Other open-sourced datasets:
  - Medleydb1.0/2.0 [Bittner et al. 2016]
  - DSD100 [Antoine et al. 2017]
  - ...
- Model trained with unrealised datasets: Spleeter [Romain et al. 2019], UMXLPredictor [Stöter et.al 2019], MDX Challenge Leaderboard B [Yuki et al. 2021]
- Evaluation Metrics: Signal-to-distortion ratio (SDR).

# Related works

## Time domain methods

- Wave in wave out.
- No explicit frequency transformation.
- Theoretically more expressive than masking methods.
- Artifacts: static noise, missing high pitch content.