Speech Enhancement
Experiment results

Table 1. Speech enhancement results

	PESQ	CSIG	CBAK	COVL	SSNR
Noisy	1.97	3.35	2.44	2.63	1.68
Wiener [23]	2.22	3.23	2.68	2.67	5.07
SEGAN [12]	2.16	3.48	2.94	2.80	7.73
Wave-U-Net [24]	2.40	3.52	3.24	2.96	9.97
Proposed	2.28	2.43	2.96	2.30	8.75
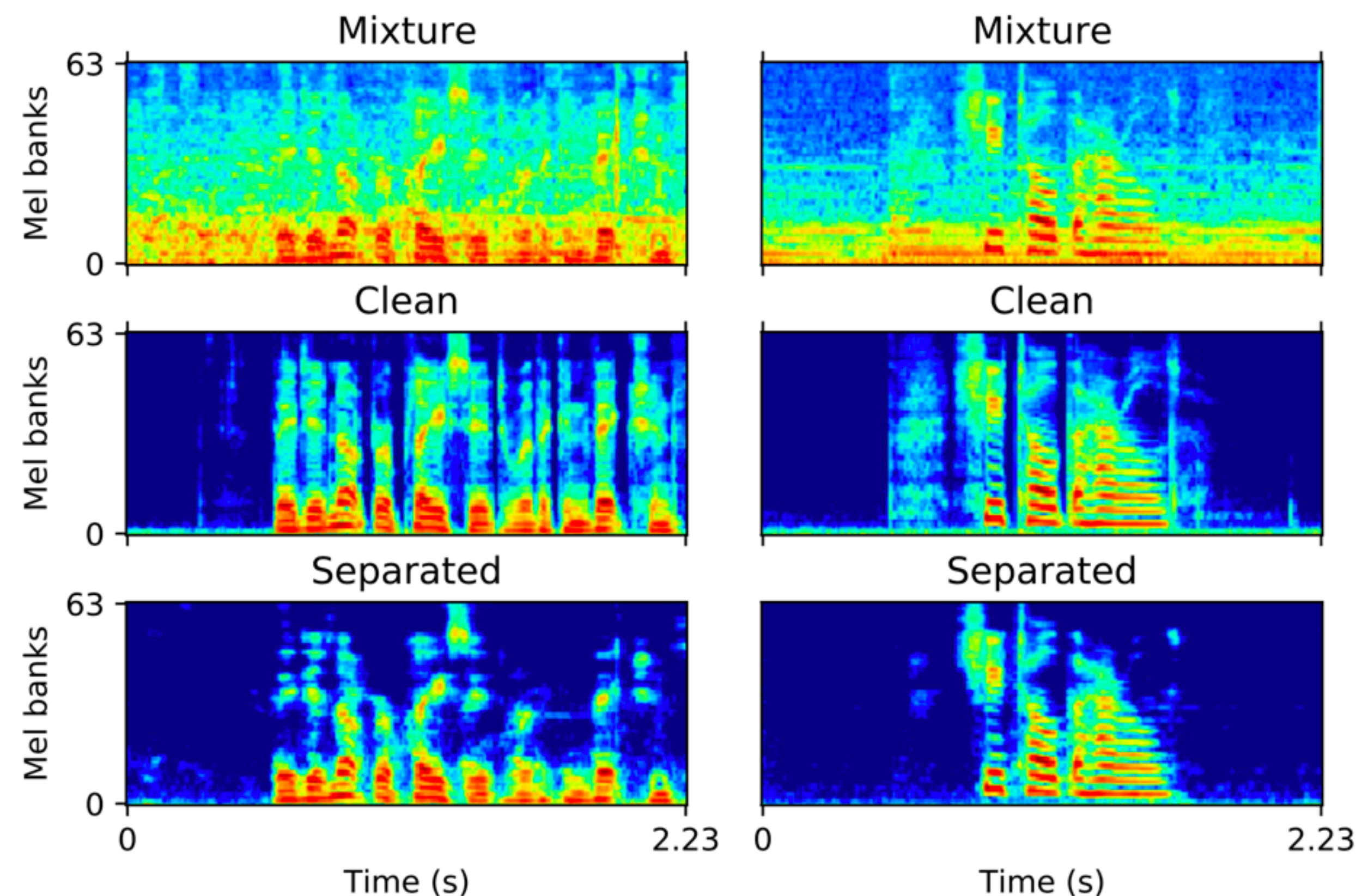
- Not SOTA, but at least worked.

- Some details, especially in the higher frequency, are lost.

Overview

- **Music Source Separation (MSS)**

  - Introductions & Related works

  - Motivation1: MSS empirical upper bounds

  - Motivation2: Channel-wise subband feature

  - Proposed model: Channel-wise subband phase-aware ResUNet (CWS-PResUNet)

- **Speech Enhancement (SE) topics.**

- **General Speech Quality Restoration (GSR)**

  - Introductions & Related works

  - Motivation1: Single task speech restoration & weaknesses

  - Motivation2: Universal Speech Vocoder

  - Proposed model: VoiceFixer