

2019: AUDIO MELODY EXTRACTION

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1. INTRODUCTION

For "AUDIO MELODY EXTRACTION", we focus on two important elements. One is singing voice separation for given audio, and another is to get pitch of the voice track which is the result from singing voice separation.

2. METHODOLOGY

First, we implement Andreas's method[1] which uses deep learning for singing voice separation. Because we think that the method is simple to implement and great performance, decide to use this method. Second, we search the method for getting pitch, and finally reference the MATLAB one. Although we also find the Python one, MATLAB one is more accurate than Python one with the reason of different detail of method.

2.1 Dataset

For singing voice separation, we use training data with iKala and DSD100 dataset.

3. CONCLUSION

Although we think the performance is good, the method for extracting pitch still has something to improve. For example, uses other singing voice separation method, or extracts pitch with deep learning methods. We may get the better result after trying these idea.

4. REFERENCES

[1] Jansson, Andreas, et al. "Singing voice separation with deep U-Net convolutional networks." (2017).