OVERVIEW OF REVIEWS

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Review 1

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Evaluation of the Contribution

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Quality of Content (10%): 6

Significance (10%): 6

Originality (10%): 8

Thematic Relevance (10%): 8

Presentation (10%): 6

Overall Recommendation (50%): 8

Total points (out of 100) : 74

Comments for the Authors

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This is an interesting and original preliminary work of clear relevance to the

DCASE workshop which applies NMF for automatic estimation of traffic noise

levels. The proposed approach is evaluated using a small set of simulated

acoustic scenes, and results indicate that the NMF-based system is better at

estimating the traffic noise level when compared with simply computing the

sound pressure of the global mixture.

The main drawback of the current study is that the current dataset is too

small (both in terms of duration and in number of classes) in order to be able

to extract concrete conclusions on the suitability of the proposed method.

Hopefully that will be rectified in a continuation of this work. Apart from

this, a few minor comments:

*\* Some additional motivation on why it would be important to separate traffic*

*noise sounds from other types of sounds instead of simply measuring the global*

*sound pressure level at a traffic scene. You could provide some examples of*

*such non-traffic related sounds and why these should not be considered as part*

*of traffic noise.*

*\* There are several typos throughout the paper, e.g. "the non-negative matrix*

*factorization" -> "non-negative matrix factorization", "others sources" ->*

*"other sources", "function cost" -> "cost function". Please proofread the*

*paper prior to submitting a revised version.*

*\* Equation 7: variable p is not defined.*

\* Section 3: were the sound sources used for training independent from the

sound sources used for testing the system? *Also, how many sound samples were*

*used for each class?*

*\* Section 3: The citation on the SimScene software is missing*

*\* Figure 2: it would be more useful to display the complete spectrogram,*

*estimated car+horn spectrogram, and ground truth car+horn spectrogram for*

*comparing the source separation capabilities of the system.*

*\* Fig. 4 is currently not clear when printed, please use a coarser line*

*granularity for the dashed and dotted lines.*

*\* Section 4: I would suggest plotting the estimated RMSE using continuous*

*values of beta from 0 to 2 when using the maxiimum possible number of*

*iterations (100).*

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Review 2

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Evaluation of the Contribution

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Quality of Content (10%): 8

Significance (10%): 8

Originality (10%): 8

Thematic Relevance (10%): 8

Presentation (10%): 8

Overall Recommendation (50%): 10

Total points (out of 100) : 90

Comments for the Authors

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This paper presents a method for estimating sound levels of traffic noise

using NMF, which is a very interesting and timely topic. The paper is very

well written, and the preliminary results presented are encouraging.

Section 2.2 mentions the use of a fixed dictionary W, with no further

explanation. For completeness, it would be useful to add a paragraph

describing how this dictionary is obtained.

Minor observations:

*section 1, paragraph 2: klaxon - is it not car horn? is it a different thing?*

section 1, paragraph 2: Computational Auditory Scene Analysis is not exactly a

method for sound source separation, like ICA

*Section 2, paragraph 1: seen on Figure 1 - > in Figure 1*

*Section 3, paragraph 2: there is a missing reference, I suppose it has been*

*replaced with the footnote, remove the cite*

*Section 3, paragraph 3: 3 classes of sound -> of sounds*

*Section 3, paragraph 3: number of iteration -> iterations*

*Section 4, paragraph 4: error that would be done -> would be made*

*Section 4, paragraph 5: KL divergence proposed the most interesting - >*

*produced ?*

*in general: data base -> database*

*Reference [10] M. Heln -> M. Helen (with acute accent to second e -> e' or*

*just use normal e)*

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