

Subject ICASSP 2017 Review Results for paper #2288

From ICASSP 2017 Notifications

To eeshan@cse.iitb.ac.in, gurumoor@amazon.com, ajitvr@cse.iitb.ac.in

Date Tue 1:39 am

Priority Highest

Dear Eeshan Malhotra, Karthik Gurumoorthy, Ajit Rajwade

Paper ID: 2288

Title: 'STRONGER RECOVERY GUARANTEES FOR SPARSE SIGNALS EXPLOITING COHERENCE STRUCTURE IN DICTIONARIES'

The ICASSP 2017 Technical Committee has completed the review process and we are pleased to inform you that the manuscript listed above has been ACCEPTED for presentation in a poster session at the conference. Congratulations!

Session Type: Poster

Session Title: 'Computational Imaging II'

The Technical Program Committee carefully selected reviewers for ICASSP 2017 and assigned papers in their areas of expertise. Every paper received at least two reviews, most of them three or more, which were evaluated by the Technical Program Committee for decision. Comments from the reviewers on your paper are appended to this email message. We hope these will be helpful in preparing your final manuscript for upload through the website by January 9, 2017. A few important remarks concerning paper revision are as follows:

1. The title of the paper, the authors and the author order cannot be changed.
2. The revised paper must conform to the format detailed in the Author Kit. In particular, the body of the paper is limited to four double-column pages. A fifth page may be included, but must contain only references.
3. Major changes to the text of the reviewed and accepted paper are not permitted; please confine revisions to minor amendments of format and content, and please be mindful of the reviewers' comments in updating the paper. The Technical Committee reserves the option to use the accepted version of the paper if the modified version differs very substantially from what was reviewed.

In addition, please note that at least one author must be registered for the conference at a non-student rate by January 9, 2017. Each full registration can cover up to four papers. Per policy of the IEEE Signal Processing Society (SPS), any paper not covered by a full registration must be removed from the technical program. Online registration will open at the conference website soon.

Further, papers that are not presented at the conference must also be excluded from the official proceedings and will not appear on IEEE Xplore. It is therefore very important that at least one author of this paper attends the conference to present the work.

In the case that any special A/V equipment is required for presentation please inform the conference manager through email: papers@ieee-icassp2017.org. Please note that not all special requests can be honored, and there may be additional costs associated with additional equipment.

The IEEE SPS provides travel grants on a highly competitive basis to student and non-student authors from low-income countries. Only a limited number of grants are available. The grants will be awarded to applicants who have a genuine need for support, and the paper quality will be taken into consideration. SPS membership is required at the time when the application is made. The SPS Travel Grant information page is at <http://signalprocessingsociety.org/events/sps-travel-grants>.

Information on many aspects of ICASSP 2017, including the venue, accommodation, tourism, and visa requirements, will soon be available on the conference web site, <http://www.ieee-icassp2017.org/>

Finally, for those who will need a visa to attend ICASSP 2017 in New Orleans, please note that the IEEE has strict guidelines that invitation letters for visa purposes can only be sent to people who have completed the registration process.

Information regarding invitation letters will be posted on the website very soon. Please note that the visa application and approval procedure can take some time, so we suggest that you start the process early.

Again, congratulations; we look forward to welcoming you in New Orleans this spring.

Sincerely yours,

Tulay Adali & Eli Saber
ICASSP 2017 Technical Program Co-Chairs

----- Comments from the Reviewers: -----
Importance/Relevance: Of sufficient interest

Novelty/Originality: Moderately original

Technical Correctness: Probably correct

Experimental Validation: Lacking in some respect
Comment on Experimental Validation:
The numerical results are too limited. Tests would need to be conducted on larger datasets.

Clarity of Presentation: Difficult to read
Comment on Clarity of Presentation:
it is hard to follow the paper, as very few illustrations and examples are provided. The problem is also not clearly motivated.

Reference to Prior Work: References adequate

Importance/Relevance: Of limited interest
Comment on Importance/Relevance:
In my opinion, the relative weakness of this well-written and original paper is that the effective coherence itself is not terribly important. It gives one mechanism for providing a performance guarantee for basis pursuit, but the actual performance is what is important, which is unchanged.

Novelty/Originality: Very original

Technical Correctness: Definitely correct

Experimental Validation: Sufficient validation/theoretical paper

Clarity of Presentation: Very clear
Comment on Clarity of Presentation:
The paper is rather clear and easy to read. A minor thing caught my attention: "where X_i indicates the i th column of matrix X " seems to be misplaced since that notation is used a few sentences earlier.

Reference to Prior Work: References adequate
Comment on Reference to Prior Work:
The references are adequate, but there is a typo in [4] and sloppiness on capitalization in [1], [2], [3] and [8].

Importance/Relevance: Of limited interest
Comment on Importance/Relevance:
The paper describes an algorithm to split a dictionary into two or more in order to improve the resulting sparse recovery bound.

Novelty/Originality: Moderately original
Comment on Novelty/Originality:

The paper includes an interesting idea and there is some originality. However, the use case is elusive.

Technical Correctness: Probably correct

Experimental Validation: Lacking in some respect

Comment on Experimental Validation:

It is not clear what is the use of an RIP constant greater than 1, as the authors list in the simulations.

Clarity of Presentation: Clear enough

Reference to Prior Work: References adequate

General Comments to Authors:

Although the paper provides an interesting algorithm from a theoretical perspective, it is not clear how the algorithm will be useful in practice. Most practical CS analysis relies on the RIP and not on coherence bounds, since these are too restrictive. In addition, simulations are typically employed to determine the actual limits of the system, as the usual RIP/Spark/Coherence bounds are too pessimistic. Even with the improvements in this paper, this does not change.
