

## Call for Contributions

**Inform the Chair:** with the Title of your Contribution

**Submission URL:**

<https://www.iariasubmit.org/conferences/submit/newcontribution.php?event=DBKDA+2017+Special>

Please select Main topic as **SIA**

### Special track

## SIA: Statistical Implicative Analysis

### Chair and Coordinator

Dr. Martine Cadot, LORIA, Nancy, France

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along with

**DBKDA 2017, May 21 - 25, 2017 - Barcelona, Spain**

The Ninth International Conference on Advances in Databases, Knowledge, and Data Applications

<http://www.iaria.org/conferences2017/DBKDA17.html>

Statistical Implicative Analysis (SIA) is a data analysis method designed by Régis Gras almost 40 years ago (Gras 1979). It was originally created to reveal the links between a small number of knowledge items out of data collected within a small group of students. The CHIC software, which was associated with it from the beginning, allowed teachers to gain a visualization of the only significant links between items directly from the responses of their students to the items and to discover, for example, that the knowledge of item B required usually that of the item A (i.e., A implies B, expressed by the rule  $A \rightarrow B$ ).

Since that time the methods of Data Mining have multiplied and generalized, and the SIA itself was integrated into this set of methods while continuing to develop actively, as evidenced by the existence of the ASI conferences (e.g., ASI8 in Rades in 2015 <http://sites.univ-lyon2.fr/asi8/?page=8&lang=en> , or ASI9 in preparation for 2017) and the publication of books (Gras et al., (eds) 2008, Gras et al. (eds). 2017 to come). The SIA kept its specific features of interest amongst other data analysis methods: automatic extraction of causal links, i.e., exceeding a given significance threshold, simple and interactive visualization of significant links using CHIC, counter-examples taken into account in a specific way. Also, SIA was generalized in many directions, namely, much greater number of items and subjects, users from all disciplinary fields, various measurement scales for items, etc.

The successive conferences and the publication of numerous books on SIA show the dynamism of the community of researchers working on the development of this method.

SIA special track aims at giving the international community attending the DBKDA conference a **status on (but not limited ot)**

- An overview of the current state-of-the-art of SIA research
- The theoretical aspects of SIA, current and prospective
- Practical aspects such as visualization, interpretation, programming and applications in specific fields
- Open issues and challenges on SIA
- Potential way of progressing SIA

## References:

- Gras, R., Suzuki, E., Guillet, F. and Spagnolo, F. (2008), *Statistical Implicative Analysis: Theory and Applications*, *Studies in Computational Intelligence* Volume No. 127, Berlin & Heidelberg: Springer-Verlag
- Gras, R., (2017 to appear) "Analyse Statistique Implicative; des Sciences dures aux Sciences Humaines et Sociales", Cepaduès, France
- Gras, R. (1979) *Contribution à l'étude expérimentale et à l'analyse de certaines acquisitions cognitives et de certains objectifs didactiques en mathématiques*, thèse de doctorat, Rennes, France

## Important Datelines

- Inform the Chair: As soon as you decided to contribute
- Submission: ~~February 3~~ **April 13**
- Notification with comments for camera-ready: ~~March 3~~ **April 20**
- Registration: ~~March 18~~ **April 29**
- Camera ready: ~~April 9~~ **April 29**

## Contribution Types

- Regular papers [in the proceedings, digital library]
- Short papers (work in progress) [in the proceedings, digital library]
- Posters: two pages [in the proceedings, digital library]
- Posters: slide only [slide-deck posted on [www.iaia.org](http://www.iaia.org)]
- Presentations: slide only [slide-deck posted on [www.iaia.org](http://www.iaia.org)]
- Demos: two pages [posted on [www.iaia.org](http://www.iaia.org)]

## Paper Format

- See: <http://www.iaia.org/format.html>
- Before submission, please check and comply with the editorial rules: <http://www.iaia.org/editorialrules.html>

## Publications

- Extended versions of selected papers will be published in IARIA Journals: <http://www.iaiajournals.org>
- Print proceedings will be available via Curran Associates, Inc.: <http://www.proceedings.com/9769.html>
- Articles will be archived in the free access ThinkMind Digital Library: <http://www.thinkmind.org>

## Paper Submission

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## Registration

- Each accepted paper needs at least one full registration, before the camera-ready manuscript can be included in the proceedings.
- Registration fees are available at <http://www.iaia.org/registration.html>

## Contact

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