8th International Conference
Implicative Statistic Analysis

http://sites.univ-lyon2.fr/asi8

Radès (Tunisie) November 11th - 14th, 2015

Institut Supérieur des Études Technologiques de Radès

ISET de Radès
BP 172 - 2098 - Radès Médina

Association de Recherche en Statistique Appliquée

Call for papers
The deadline is the following: ~~5th of May 2015~~ 15th of June 2015

Jean-Claude Régnier, Chair of scientific and programme committee
(University of Lyon) jean-claude.regnier@univ-lyon2.fr
Régis Gras, Honorary Chair
(University of Nantes) regisgra@club-internet.fr
Farouk Kria, Vice-Chairman of scientific and programme committee (Président du Conseil national de la statistique de Tunisie)

president@cns.tn

We are pleased to invite you to attend the ASI 8 conference by submitting a communication in a form of paper with an oral presentation or a poster on the following topics:

- Fundamental Concepts of ASI: statistical modelling, types of variables, principal and additional variables;
- New Advances in progress, stability of indices, entropic implication intensity, extension to new types of variables, rules of exception, duality (space of subject- space of rules), metrical structure and topology of space led by their contribution to the subjects or their typicality, vector analysis, etc ...);
- Comparison of critical processes, models, representations and the results of the ASI with other methods of data analysis (Galois lattices, Bayesian networks, trees induction, factorial analysis, etc ...);
- Practice with the software CHIC, current and expected developments;
- Applications processed by ASI and comparison with other methods, in the areas of didactics, sciences ofeducation, psychology, sociology, economics, art history, biology, medicine, archaeology, etc. ...;

- Graphical presentation of results and numerical applications, aid for the interpretation of these results, respective roles and critics of the types of variables, the principal variables and supplementary choices;
- Specificity of training with the ASI: use of software CHIC, interpretation of graphical representations (implicative graph, cohesive hierarchy tree)
- Didadict Issues of ASI;

The implicative statistical analysis aims to discover the shape and structure of rules, a set of data across subjects (or objects) and the variables from a statistical modelling of quasi-implication: *if the variable or combination of variables **a** was observed in the population, then in general the variable **b** is observed as well.* The variables involved can be of various types: binary, modal, numeric, range, fuzzy, ... The set of rules obtained can be structured with several complementary approaches (implicative graph, hierarchy oriented). The display of results, as their interpretation is easy with the software CHIC (Classification Hiérarchique implicative et Cohésitive).

As for the five previous meetings (Caen-France, São Paulo-Brazil, Palermo-Italy, Castellón-Spain, Palermo-Italy, Caen-France), during A.S.I. 8 we want to keep and encourage a scholar, kind, and rigorous attitude. The Scientific Committee composed of specialists from various sources will ensure the scientific quality of the proposed work. The accepted communications will be published in the scientifically recognized Proceedings. By their novelty, they will prolong the recently published works:

[1.] R. Gras, E. Suzuki, F. Guillet and F. Spagnolo, (Eds) (2008) *Statistical Implicative Analysis*, , Springer-Verlag, Berlin-Heidelberg

[2.] Gras R., Régnier J.-C., Guillet F. (Eds) (2009) *Analyse Statistique Implicative. Une méthode d'analyse de données pour la recherche de causalités*. Cépaduès Ed. Toulouse

[3.] Orus, P., Zamora, L., Gregori, P. (2009) *Teoria y Aplicaciones del Analisis Estadistico Implicativo:* Universitat Jaume-1, Castellon (Espagne)

[4.] Régnier J.C., Gras R., Spagnolo F., Di Paola B. (Eds) (2011) *Analyse Statistique Implicative, Objet de recherche et de formation en analyse des données, outil pour la recherche multidisciplinaire, Prolongement des débat*s.   ISSN on-line 1592-4424, Palerme: Université de Palerme.

[5.] Régnier J.C., Bailleul, M., Gras R.(Eds) (2012) *Analyse Statistique Implicative: de l'exploratoire au confirmatoire*. ISBN 978-2-7466-5256-9 Caen : IUFM de l'Université de Caen.

[6.] Gras R., Régnier J.-C., Marinica, C., Guillet F. (Eds) (2013) *Analyse Statistique Implicative. Méthode exploratoire et confirmatoire à la recherche de causalités*. Toulouse: Cépaduès Editions

In A.S.I. 8, we also launch five challenges:

1 ° To each pair of variables VxV, associate q vector, centered reduced index of implication. Study of the field gradient.

2 ° Continuous variables with uniform law or any law. Examples expected.

3 ° Concept of "attractor" variable, top of the implicative cone. Semantics aspects. Examples expected.

4 ° Relationship between the intensity of implication and confidence (conditional probability). Examples expected.

5 ° Exploit the set-metaphor to define an intensity of inclusion taking into account the direct implication and the contrapositive one.

6 ° In the proceedings of ASI7 conference, in part Genèse et développement de

l'Analyse Statistique Implicative, a study of the hierarchical and conceptual organization of the cognition (eg. schemes, procedures, design, method, ..) would be worth to be made by a psychologist or an educational scientist on the basis of nested classes a the cohesion hierarchy. Examples expected.

Submission: submitted papers should not exceed a maximum of 30 pages in a format conforming to the template on the website:

http://sites.univ-lyon2.fr/asi8/format/Style_ASI8_2015_Word.rar

We have already specified that the text should be in Times New Roman 12, spacing 1.5 and on the first page, you must include the title of the paper, the name (s), affiliation (s) of author (s) and e-mail of each author, an abstract (in French and English) of maximum 500 words each. If the text is in Italian, Spanish or Portuguese will also require a summary in the used language.

Proposals for posters will be prepared on a page listing the title, the name (s), affiliation (s) of author (s), address and email of each author, not exiting the limit of 500 words in Times New Roman 12, spacing 1.5.

The **poster** should follow a format as defined in the following web address:

http://sites.univ-lyon2.fr/asi8/?page=poster&lang=en

Language:

Five languages are accepted for oral communications: English, Spanish, French, Italian or Portuguese. But oral communication must be based on a slide presentation that will be written in French, Portuguese or English.

Sending proposals in .Doc and .PDF

The texts will be sent by email in either Word.doc and PDF formats at the email address mentioned at: http://sites.univ-lyon2.fr/asi8/index.php?page=8

before 1**5th of June 2015** to be submitted anonymously to the Scientific Committee (3 reviewers by papers).

Name file: ASI8_*firstauthorname*.doc and ASI8_*firstauthorname*.pdf