

Call for Papers

Workshop on Class Imbalances: Past, Present, Future (CIPPF'2012)

in conjunction with the [ICMLA-2012](#) Conference
Boca Raton Marriott Hotel, Boca Raton, Florida USA
December 12-15, 2012

Organizers: Jerzy Stefanowski, Nathalie Japkowicz, Nitesh V. Chawla

Motivations and goals:

Many real-world applications have revealed difficulties in learning from imbalanced data, where at least one of the target classes contains a much smaller number of examples than the other classes. The class imbalance problem occurs in such domains as: fraud/intrusion detection, risk management, medical data analysis, technical diagnostics/monitoring, image recognition, text categorization or information filtering. Class imbalances constitute a difficulty for most learning algorithms and as a result many classifiers are biased toward the majority classes and fail to recognize examples of the minority class. The challenging issue in learning from imbalanced data has received growing research interest in the last decade and a number of specialized methods have already been proposed. However due to the inherent complex characteristics of imbalanced data sets, new methods and studies on the fundamental properties of this problem are still needed. This motivates us to organize the workshop, which could be a forum for discussing current trends and recent advances in learning from imbalanced data as well as new promising research directions.

Topics of interest:

We invite researchers, practitioners, and graduate students who are developing new algorithms, or applying previously proposed approaches on new applications, to share their results, ideas, and experience.

Suggested topics include (but are not limited to) the following:

- Sampling techniques (over-, under- or hybrid)
- Modifying the inductive bias of learning algorithms
- Transforming data distributions in ensembles dedicated for class imbalances
- Using simulated data to tackle or study the class imbalance problem
- Detecting and adapting to distributional shift and concept drift in evolving imbalanced data
- Semi-supervised and active learning from imbalanced data
- Applications in fields such as medicine, technical diagnostics, text processing, economy, bio-informatics
- Evaluation challenges arising with class imbalanced data, such as when injecting synthetic data in the training set (the testing set distributions are then materially different)

Paper Submission:

We encourage submissions of long or short research papers (6 or 4 pages) as well as extended abstracts of work in progress (2 pages). The papers must be submitted in the form of PDF files and should conform to the IEEE CS Press Conference Paper Format (single-spaced, double-column, 10-point font size) through the [ICMLA-2012 Paper Submission Site for Special Sessions and Workshops](#).

Important Dates:

August 20th, 2012: Paper submission deadline (Extended - Firm)
September 7th, 2012: Acceptance Notification
October 1st, 2012: Camera-ready paper due
TBA: Author registration due
December 12-15, 2012: ICMLA Conference

IEEE Submission Templates and Guidelines:

[Templates and Author Guidelines for word](#)
[Templates and Author Guidelines for Latex](#)
[IEEE PDF Specifications](#)

Note: IEEE copyright form will be required after your paper is accepted.

Review Process:

The papers will be reviewed by a minimum of two members of our program committee.

Workshop Notes:

All accepted papers or abstracts will be included in the proceedings to be published by IEEE Press.

Workshop organizers:

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