SCOPE

The 15th. International Workshop on Approximation Algorithms for Combinatorial Optimization Problems (APPROX'2012), and the 16th. International Workshop on Randomization and Computation (RANDOM'2012) will be held in 15-17 August 2012 at M.I.T. in Cambridge, MA, USA.

APPROX'2012 focuses on algorithmic and complexity theoretic issues relevant to the development of efficient approximate solutions to computationally difficult problems, while RANDOM'2012 focus on applications of randomness to computational and combinatorial problems. RANDOM'2012 is the sixteenth workshop in the series; APPROX'2012 is the fifteenth in the series.

TOPICS

Papers are solicited in all research areas related to randomization and approximation, including, but not limited to:

APPROX

- design and analysis of approximation algorithms
- hardness of approximation
- small space, sub-linear time, and streaming algorithms
- embeddings and metric space methods
- mathematical programming methods
- combinatorial problems in graphs and networks
- game theory, markets, and economic applications
- geometric problems
- packing, covering, and scheduling
- approximate learning
- other applications
RANDOM

- design and analysis of randomized algorithms
- randomized complexity theory
- pseudorandomness and derandomization
- random combinatorial structures
- random walks/Markov chains
- expander graphs and randomness extractors
- probabilistic proof systems
- random projections and embeddings
- error-correcting codes
- average-case analysis
- property testing
- computational learning theory

SUBMISSIONS

Electronic submissions are solicited. Please consult the following servers:

APPROX:  
https://secure.iacr.org/websubrev/approx2012/submit/

RANDOM: https://secure.iacr.org/websubrev/random2012/submit/

The submission must be received by **17:00pm (EDT) of April 20** for your submission to be considered.

**Abstract Format:** Authors should submit an extended abstract (not a full paper). An abstract should start with the title of the paper, each author's name, affiliation, and e-mail address, followed by a one-paragraph summary of the results to be presented. This should then be followed by a technical exposition of the main ideas and techniques used to achieve these results including motivation and a clear comparison with related work. The abstract should not exceed 10 single-spaced pages on letter-size paper (not including the title page and the references), using reasonable margins and at least 11-point font. If the authors believe that more details are essential to substantiate the main claims of the paper, they may include a clearly marked appendix that will be read at the discretion of the program committee. Abstracts deviating significantly from these guidelines risk being rejected without further review.

**Simultaneous submission:** Simultaneous submission to other conferences with published proceedings is not allowed.

PROCEEDINGS

Proceedings will be published in the Springer-Verlag series Lecture Notes in Computer Science. Previous proceedings of APPROX appeared as LNCS 1444, 1671, 1913, 2129, 2462, 2764, 3122, 3624, 4110 and 4627 while previous proceedings of RANDOM appeared as LNCS 1269, 1518, 1671, 2129, 2483, 2764, 3122, 3624, 4110, 4627 and as Proceedings in Informatics 8.
IMPORTANT DATES
Notifications: June 8, 2012.

PROGRAM COMMITTEES

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CONFERENCE WEB PAGE

http://cui.unige.ch/tcs/random-approx/