

Call for Papers



Artificial Intelligence and Bioinformatics Special Track at AAAI-10

July 11–15, 2010
Atlanta, Georgia USA

Sponsored by the Association for the Advancement of Artificial Intelligence

Important Dates

January 18 2010: Abstracts Due

January 21 2010: Paper Submissions Due

March 26 2010: Author Notifications

April 13, 2010: Final Electronic Camera Ready Abstracts Due at AAAI Office

This special track invites the submission of research papers on novel AI concepts, techniques, and systems to address current problems in bioinformatics and computational and systems biology. Papers should describe either bioinformatics related research that takes advantage of AI methods, or clearly explain how a particular AI approach may be capable of addressing a particular computational challenge arising from the life-sciences. Examples of relevant topics include algorithms for the following:

- Protein structure and function prediction
- Automated genome annotation
- Biological networks inference
- Comparative genomic analyses
- Scientific literature and textual annotation mining
- Integrative systems biology approaches
- Chemoinformatics and drug discovery applications
- Personalized medicine applications

A list of relevant keywords is included below.

Papers will be reviewed by qualified reviewers drawn from a special track committee as well as the general program committee. Submissions to this special track deemed not to be relevant may be considered for review for the general technical papers track at the discretion of the track and conference cochairs.

Author Registration

Authors must register at the AAAI-10 AIB web-based technical paper submission site (aibio.confmaster.net). The software will assign a password, which will enable the author to log on to submit an abstract and paper. In order to avoid a rush at the last minute, authors are encouraged to register as soon as possible after December 1.

Abstract and Paper Submission

Electronic abstract and paper submission through the AAAI-10 AIB paper submission site is required on or (preferably) before

the deadline dates listed above. We cannot accept submissions by e-mail or fax.

Papers must be in trouble-free, high resolution PDF format, formatted for US Letter (8.5" x 11") paper, using Type 1 or TrueType fonts. Papers may be no longer than 6 pages including references, and formatted in AAAI two-column, camera-ready style (see the author instructions page). Please note that these formatting instructions are for final, accepted papers; no additional pages can be purchased at the review stage. In addition, the copyright slug may be omitted in the initial submission phase. Please also refer to the instructions on how to prepare your paper for blind review.

Authors will receive confirmation of receipt of their abstracts or papers, including an ID number, shortly after submission. AAAI will contact authors again only if problems are encountered with papers. Inquiries regarding lost papers must be made no later than January 28, 2010.

Submissions to Other Conferences or Journals

Papers submitted to this conference must not have been accepted for publication elsewhere or be under review for another AI conference. However, to encourage interdisciplinary contributions, we may consider unpublished work that has been submitted or presented in part to a forum outside of AI. The guidelines of the AAAI policy on multiple submissions are fully detailed below and must be carefully followed.

Review Process

Program committee members will identify papers they are qualified to review based on the information submitted electronically (the paper's title, keywords, and abstract). Their reviewing will be done blind to the identities of the authors and their institutions.

Authors will have a limited opportunity to respond to initial reviews. This author's feedback may then be taken into account in the final reviews and recommendations. The program committee's reviews will make recommendations to the track cochairs. Although the track cochairs will formally make all final decisions, in practice almost all will be made earlier in the process.

Publication

Accepted papers will be allocated six (6) pages in the conference proceedings. Up to two (2) additional pages may be used at a cost to the authors of US\$275 per page. Final papers exceeding

eight (8) pages and those violating the instructions to authors will not be included in the proceedings. Authors will be required to transfer copyright of their paper to AAAI.

Questions and Suggestions

Concerning author instructions and conference registration, write to:

aaai10@aaai.org

Concerning suggestions for the program and other inquiries, write to the AI and Bioinformatics Track Cochairs.

Special Track Cochairs

Pierre Baldi (University of California, Irvine, USA)

Paolo Frasconi (Università degli Studi di Firenze, Italy)

The Special Track on Artificial Intelligence and Bioinformatics call for papers is also available as a printable PDF document

Keywords

Bioinformatics Applications

alternative splicing
biological databases and data integration
biological networks
biological sequence analysis
cancer
cell cycle
cell signaling
chemical reactions
chemoinformatics and QSAR
Ch-IP-seq
chromatin
clinical genomic analysis
comparative genomics
comparative network analysis
computational genetics and epigenetics
computational neuroscience
development and developmental models
drug screening, design, and discovery
eQTL
functional genomics
gene expression/microarrays
gene regulation
genome annotation
genomics
high dimensional data
high throughput methods
high throughput sequencing
immunoinformatics
metabolomics
metagenomics
pathways
phylogenetic analysis and reconstruction
protein structure
protein-protein interactions
proteomics
regulatory networks
RNA and RNA structure
RNA-seq
sequence analysis
stem cells
structural biology
synthetic biology
systems biology
transcription factors

virtual screening
whole genome analysis

AI Techniques

clustering methods
databases
data mining
ensemble methods
evolutionary computation
feature selection
inductive logic programming
integrative approaches
kernel methods
multi-task learning
natural language processing
neural networks
optimization methods
pattern discovery
probabilistic graphical models
relational learning
statistical analysis
structured output prediction
supervised learning
support vector machines
text mining
time series analysis
unsupervised learning
visualization methods

AAAI-10 Policy Concerning Submissions to Other Conferences or Journals

Papers submitted to this conference must not have been accepted for publication elsewhere or be under review for another AI conference. (The AAAI Nectar and Challenge paper submissions have specific guidelines that can be found in their respective call for papers.)

To encourage interdisciplinary contributions, AAAI will consider work that has been submitted or presented in part elsewhere, if it is unlikely to have been seen by more than a few members of the AAAI audience (however, see the exception for Challenge Track papers). As such, papers may not be dually submitted to other AI or AI subarea conferences. Papers under submission to a journal that contain overlap with AAAI papers will be considered as long as the author specifies the dual submission and certifies that the journal submission contains significant material that is not included in the AAAI submission. Papers that have been published in full in another conference or journal will not be accepted for review. Novelty is an important criterion in the selection of papers.

AAAI requires the following:

Authors must specify the conferences and journals to which the paper has been dually submitted.

Authors must withdraw papers under review or accepted for other AI conference venues if the paper is submitted to AAAI.

Papers not dually submitted should so indicate on the title page.

For questions as to whether a given meeting is considered under the dual submission policy, or for clarifications of this policy, submitters should contact the Program Chairs.