

## 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](http://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 Coauthors.

## Special Track Coauthors

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.