Computational analysis of biological structures and networks

Instruction for the thematic workshop

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Assessment methods

Two parts:

 First part: few questions on course topics (written exam, during exam sessions)

 Second part: talk within a tematic workshop (as in a conference)

Assessment methods

Talk within a tematic workshop: details

- The topic of the tematic workshop will be decided in advance
- Each student chooses a scientific paper to be presented in 10 minutes
- One tematic workshop will be held at the end of the course
- Other sessions in June and September

Procedure

- All students who want to participate to the first session need to register by sending an email (Deadline: 15/11)
- All students have to choose a paper on the assigned topic to be presented at the workshop
 - One different paper per student (a list of taken papers will be maintained on the web page)

CHECKPOINT: the chosen paper should be approved by the instructor

Topic

- The topic for this year is "Bag of words approaches in Bioinformatics and Pattern Recognition"
 - Definition of words and dictionaries for structured data (e.g. Ngrams)
 - Novel modelling strategies
 - Applications of Bag of words pipeline

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Procedure

 Preferred: Papers published in Briefings in Bioinformatics, Bioinformatics IEEE/ACM Transactions on Computational Biology and Bioinformatics, BMC Bioinformatics, BMC Genomics, Artificial Intelligence in Medicine or other high impact journals (Nature, Science, ...)

Alternatives:

- Other papers published journals of Elsevier, IEEE, ACM, Springer and Oxford Academic can be considered (check)
- Conference papers published in IEEE-IAPR-ACM conferences

The talk

- 10 minutes (strict!)
- Suggested structure of the talk:
 - Introduction to the problem
 - Main idea (no formulas!) together with the advance with respect to previous works
 - Some results and discussion