

Graph Neural Networks in Biology: Organizational Matters

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WHO ARE WE?

- ▶ Research group “Genome Data Science”
<https://gds.techfak.uni-bielefeld.de>
- ▶ Coordinates:
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Organization

MODULES

- ▶ Lecture part of modules
 - ▶ *39-Inf-BDS Biomedical Data Science for Modern Healthcare Technology* (study requirement)
 - ▶ *39-Inf-WP-CLS-x Computational Life Sciences (Schwerpunkt)* (graded)
 - ▶ *39-Inf-WP-DS-x Data Science (Schwerpunkt)* (graded)
 - ▶ *39-M-Inf-INT-adv Advanced Interaction Technology* (study requirement/graded)
 - ▶ See here https://ekvv.uni-bielefeld.de/kvv_publ/publ/vd?id=451224451

PRESENTATION, PAPERS

- ▶ Presentations:
 - ▶ Presentations individually, or in groups of 2 (only for selected papers)
 - ▶ Individual presentation to last for approx. 30 minutes, followed by discussion
- ▶ Papers:
 - ▶ Papers for presentations: all already available
 - ▶ Papers available via Wiki:
<https://gds.techfak.uni-bielefeld.de/teaching/2024summer/gnnsinbiology>

SCHEDULE

- ▶ Organization and introduction: *today*
- ▶ How to present (Prof. Schönhuth): *Apr 16* (online or in presence TBA)
- ▶ How to write (Prof. Schönhuth): *Apr 23* (online or in presence TBA)
- ▶ GNNs applications and introductory tutorial: *Apr 30, May 7* (yet TBD in detail)

SCHEDULE (1 / 2)

- ▶ **Presentations:** *from May 14 (earlier possible if desired)*
 - ▶ Up to two presentations per week, if that suits everyone's schedules
 - ▶ If desired/necessary, block seminar day possible as well
- ▶ **Technical Report:** *after presentation and individual!*
 - ▶ Each report 5-8 pages
 - ▶ Optimally, report profits from feedback provided after presentation
 - ▶ Drafts can be submitted for discussion
 - ▶ Improving drafts based on feedback
 - ▶ *Submission deadline: July 10*

SCHEDULE (2/2)

- ▶ **“Paper journal”:**

- ▶ Short abstract for each of at least 5 chosen presentations
- ▶ Each abstract 1 page long

- ▶ **Project:**

- ▶ Implement and run the code from your chosen paper
- ▶ Further implementations, modifications or applications can be tested
- ▶ Your project should be presented along with your paper
- ▶ Paper + code presentation should be ca. 45 minutes long

YOU CAN CHOOSE:

- ▶ **Combo 1:**

- ▶ Presentation
- ▶ Technical report
- ▶ Paper journal

- ▶ **Combo 2:**

- ▶ Presentation
- ▶ Technical report
- ▶ Project

IMPORTANT INFORMATION

- ▶ **Attendance is mandatory!**
 - ▶ If you cannot attend a lecture, please send me an email to let me know
- ▶ **During your presentation, you are the lecturer!**
 - ▶ You should be able to let your course mates understand
- ▶ **Feel free to ask questions and ask for feedback!**
 - ▶ The objective of the seminar is for you to learn new and hopefully exciting things, so don't be scared to ask for clarification if you didn't understand something

Thanks for your attention!