## Structural Bioinformatics 2021/22

## Computer Science

**Day**: M = Monday, T = Thursday

**Teacher**: DP = Damiano Piovesan, AM = Alexander Monzon

**Type**: T = Theory, P = Practical (bring your laptop)

#         Date         Day         Teacher         Type         Topic           1         28 Feb         M         DP         T         Intro           2         3 Mar         T         DP         T         Chemical bonds           3         7         M         DP         T         Amino acids           4         10         T         DP         T         Protein folding           5         14         M         DP         T         Crystallography           6         17         T         AM         P         Structural data and PyMol visualization           7         21         M         AM         P         Maripulation of PDB structures with BioPython           8         24         T         AM         P         Distance matrix and Ramachandran's plot with BioPython           9         28         M         AM         P         Midterm I           10         31         T         DP         T         Structural superposition and alignments           11         4 Apr         M         DP         T         Structural evolution           12         7         T         DP         T         Tandem repeat proteins </th <th></th> <th></th> <th>•</th> <th></th> <th></th> <th></th>			•			
2         3 Mar         T         DP         T         Chemical bonds           3         7         M         DP         T         Amino acids           4         10         T         DP         T         Protein folding           5         14         M         DP         T         Crystallography           6         17         T         AM         P         Structural data and PyMol visualization           7         21         M         AM         P         Structural data and PyMol visualization           8         24         T         AM         P         Distance matrix and Ramachandran's plot with BioPython           9         28         M         AM         P         Midterm I           10         31         T         DP         T         Structural superposition and alignments           11         4 Apr         M         DP         T         Structural classification           12         7         T         DP         T         Structural classification           13         11         M         DP         T         Intrinsically disordered proteins           14         14         T         DP         T	#	Date	Day	Teacher	Туре	Topic
3       7       M       DP       T       Amino acids         4       10       T       DP       T       Protein folding         5       14       M       DP       T       Crystallography         6       17       T       AM       P       Structural data and PyMol visualization         7       21       M       AM       P       Manipulation of PDB structures with BioPython         8       24       T       AM       P       Distance matrix and Ramachandran's plot with BioPython         9       28       M       AM       P       Midterm I         10       31       T       DP       T       Structural superposition and alignments         11       4 Apr       M       DP       T       Structural evolution         12       7       T       DP       T       Structural classification         13       11       M       DP       T       Tandem repeat proteins         14       14       T       DP       T       Intrinsically disordered proteins         15       21       T       DP       T       Phase separation         16       28       T       AM       P	1	28 Feb	М	DP	Т	Intro
4 10 T DP T Crystallography 6 17 T AM P Structural data and PyMol visualization 7 21 M AM P Manipulation of PDB structures with BioPython 8 24 T AM P Distance matrix and Ramachandran's plot with BioPython 9 28 M AM P Midterm I 10 31 T DP T Structural superposition and alignments 11 4Apr M DP T Structural evolution 12 7 T DP T Structural evolution 13 11 M DP T Tandem repeat proteins 14 14 T DP T Intrinsically disordered proteins 15 21 T DP T Superposition with BioPython and PyMol scripting 16 28 T AM P Superposition with BioPython and PyMol scripting 17 2 May M AM P Midterm II 19 12 T DP T Molecular dynamics 20 16 M DP T Comparative modeling 21 19 T DP T Statistical potentials 22 23 M DP T Ab initio structure prediction	2	3 Mar	Т	DP	Т	Chemical bonds
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15 21 T DP T Phase separation  16 28 T AM P Superposition with BioPython and PyMol scripting  17 2 May M AM P Disorder prediction  18 9 M AM P Midterm II  19 12 T DP T Molecular dynamics  20 16 M DP T Comparative modeling  21 19 T DP T Statistical potentials  22 23 M DP T Ab initio structure prediction  23 30 T DP P AlphaFold Colab	13	11	М	DP	Т	Tandem repeat proteins
16 28 T AM P Superposition with BioPython and PyMol scripting  17 2 May M AM P Disorder prediction  18 9 M AM P Midterm II  19 12 T DP T Molecular dynamics  20 16 M DP T Comparative modeling  21 19 T DP T Statistical potentials  22 23 M DP T Ab initio structure prediction  23 30 T DP P AlphaFold Colab	14	14	Т	DP	Т	Intrinsically disordered proteins
17         2 May         M         AM         P         Disorder prediction           18         9         M         AM         P         Midterm II           19         12         T         DP         T         Molecular dynamics           20         16         M         DP         T         Comparative modeling           21         19         T         DP         T         Statistical potentials           22         23         M         DP         T         Ab initio structure prediction           23         30         T         DP         P         AlphaFold Colab	15	21	Т	DP	Т	Phase separation
18     9     M     AM     P     Midterm II       19     12     T     DP     T     Molecular dynamics       20     16     M     DP     T     Comparative modeling       21     19     T     DP     T     Statistical potentials       22     23     M     DP     T     Ab initio structure prediction       23     30     T     DP     P     AlphaFold Colab	16	28	Т	AM	Р	Superposition with BioPython and PyMol scripting
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23 30 T DP P AlphaFold Colab	21	19	Т	DP	Т	Statistical potentials
	22	23	М	DP	Т	Ab initio structure prediction
24 6 June M DP P Final project specifications	23	30	Т	DP	Р	AlphaFold Colab
	24	6 June	М	DP	Р	Final project specifications