

=====

# EUTOPIA-1 TENTATIVE PROGRAM

=====

Monday (arrival)

Tuesday (Opening session and introduction)

**08.30 - 09.00. MC member registration**

09.00 - 10.30 MC meeting part I

**10.30 - 11.00 coffee break**

11.00 - 12.30 MC meeting part II

12.00 - 12.30 registration non MC members

**12.30 - 14.00 lunch**

14.00 - 14.30 Meeting start: presentation and description of the event

14.30 - 15.00 WG 1 intro by Antti Niemi and Simon Copar

15.00 - 15.30 WG 2 intro by Achille Giacometti and Angelo Rosa

**15.30 - 16.00 coffee break**

16.00 - 16.30 WG 3 intro by Joanna Sulkowska

16.30 - 17.00 WG 4 intro by Davide Michieletto and Dorothy Buck

17.00 - 17.30 WG 5 intro

17.45 - 19.30 Poster session (poster will remain displayed in the following days)

**19.30 Social dinner**

Wednesday (Miniworkshops WG 1 and 2)

09.00 - 10.30 WG 1 part I

09:00 - 09:40 Alexei Morozov - General introduction to topology, strings, knots ...

09:40 - 10:00 Egor Babaev - Hopfions in superconductors

10:00 - 10:30 Nevena Ilieva - Topological aspects of protein folding

**10.30 - 11.00 coffee break**

11.00 - 12.30 WG 1 part II

11:00 - 11:30 Piotr Sulkowski - Knots, knot invariants and knots in proteins  
11:30 - 12:00 Franco Ferrari - The analytical approach to topological structures in nature: challenges and new perspectives  
12:00 - 12:30 Round Table - forward look for WG1

**12.30 - 14.30 lunch**

**14.30 - 16.00 WG 2 part I**

Topics: Topological effects in generic polymer systems, CG polymer models, Active polymers

2x15mins:

- Andrey Milchev - Polymer systems under topological constraints
- Enzo Orlandini - Knotting and linking in polymeric systems

5x5mins:

- Jan Smrek - Thermally-induced phase separation in polymers
- Valentino Bianco - Overview on structural and dynamical properties of active polymers
- Marina Scarpa - Nanocellulose self-assembly into soft materials
- Davide Michieletto - Threadings in systems of ring and tadpole shaped polymers

30 mins: Discussion

**16.00 - 16.30 coffee break**

**16.30 - 18.00 WG 2 part II**

Topics: Polymeric gels, Characterization of biopolymer topological properties (linking number, torsion, writhe, etc...)

2x15mins:

- Ivan Coluzza - Patchy polymers: A bridge between synthetic polymers and biopolymers
- Kalina Peneva - Experimental polymer design for drug delivery

5x5mins:

- Felix Schacher - Modern polymer chemistry: From tailor-made materials to Lego(c) for grown-ups
- Luca Tubiana - Knotted and linked polymers: A short overview of new and old open problems

**Thursday (Miniworkshops WG 3 and 4)**

## 09.00 - 10.30 WG 3 part I

9.00-9.30 Joanna Sulkowska: 15 minutes introductory talk: state-of-the-art, open problems according to the MoU, Possible cross-collaboration with the other WG's (5 mins), Discussion (10 mins).

9.30 – 10.00 Talks by WG members

9.30 – 09.45 Dimos Goundaroulis: Knotoids and Protein Structure: A primer on the mathematical theory and the available computational tools

Discussion (5 min.)

9.50 – 10.05 Marek Cieplak: Knots in intrinsically disordered proteins

Discussion (5 min.)

10.10 - 10.25 Ivan Coluzza: Transferable coarse-grained potential for de novo protein folding and design

Discussion (5 min.)

**10.30 - 11.00 coffee break**

## 11.00 - 12.30 WG 3 part II

11.00 – 11.15 Pawel-Dabrowski-Tumanski: Deterministic Knots in proteins

Discussion (5 min.)

11.20 – 11.35 Bartosz Greń Non-trivial lasso in proteins and polymers

Discussion (5 min.)

11.40-12.30 Round Table

**12.30 - 14.30 lunch**

## 14.30 - 16.00 WG 4 part I

10 minutes talks:

Eoin Hurley - TBA

Giada Forte - DNA Braids

Agnese Barbensi - DNA Unknotting via Topoisomerase

Andrzej Stasiak - Chromatin unknotting

Dusan Racko - Chromatin & TADs

Cristian Micheletti - TBA

Slobodan Zdravkovic - Nonlinear dynamics of DNA and microtubules

Bojana Lucic - TBA

Noam Kaplan - TBA

**16.00 - 16.30 coffee break**

## 16.30 - 18.00 WG 4 part II

1.5h round table

# Friday (Miniworkshop WG 5 )

09.00 - 10.30 WG 5 part I

**10.30 - 11.00 coffee break**

11.00 - 12.30 WG 5 part II

**12.30 - 13.00 closing**

**13.00 - 14.00 lunch (for those who stay)**

