

# **Resummation, Evolution, Factorization**

**Monday 08 December 2014 - Thursday 11 December 2014**

University of Antwerp  
**Programme**

# Table of contents

Monday 08 December 2014 .....	1
Welcome and opening remarks .....	1
Presentation of the TMDlib project .....	1
Results on TMD evolution .....	1
Evolution and extraction of TMDs .....	1
QCD evolution of parton distributions: Comparative view .....	1
Overview of TMD evolution .....	1
Effect of TMD evolution and partonic flavor on e+e- annihilation into hadrons .....	1
Discussion .....	1
Tuesday 09 December 2014 .....	2
Collinear QCD, TMD resummation and non-perturbative aspects in SIDIS processes .....	2
Non-linear evolution equations .....	2
Production of forward jets within high-energy factorization .....	2
Discussion .....	2
Applications of the high-energy QCD effective action .....	2
High-energy resummation effects in Mueller-Navelet jet production at the LHC .....	2
Impact factor for quark-antiquark-gluon jet production in diffractive DIS .....	2
Discussion .....	2
Wednesday 10 December 2014 .....	3
Overview on transverse momentum resummation .....	3
Soft gluons and the ordering problem .....	3
Discussion .....	3
Gluon-gluon to Higgs in TMD and kT-factorization: SCET approach .....	3
Gluon-gluon to Higgs in TMD and kT-factorization: Small-x framework .....	3
Transverse momentum gluon density at low-x .....	3
Discussion .....	3
Thursday 11 December 2014 .....	4
Impact of gluon polarization on Higgs production at the LHC .....	4
Gluon TMDs and quarkonium production in (un)polarized proton-proton collisions .....	4
Higgs and Drell-Yan production in high luminosity proton-proton collisions .....	4
Discussion .....	4
Generating function for web diagrams .....	4



# Monday 08 December 2014

## **Welcome and opening remarks - Hof Van Liere, Prentenkabinet (11:00-11:10)**

- Presenters: CHEREDNIKOV, Igor

## **Presentation of the TMDlib project - Hof Van Liere, Prentenkabinet (11:10-11:20)**

- Presenters: SIGNORI, Andrea

## **Results on TMD evolution - Hof Van Liere, Prentenkabinet (11:20-11:45)**

- Presenters: CECCOPIERI, Federico Alberto

## **Evolution and extraction of TMDs - Hof Van Liere, Prentenkabinet (11:45-12:10)**

- Presenters: SCIMEMI, Ignazio

## **QCD evolution of parton distributions: Comparative view - Hof Van Liere, Prentenkabinet (13:30-13:50)**

- Presenters: CHEREDNIKOV, Igor

## **Overview of TMD evolution - Hof Van Liere, Prentenkabinet (13:50-14:35)**

- Presenters: BOER, Daniel

## **Effect of TMD evolution and partonic flavor on e+e- annihilation into hadrons - Hof Van Liere, Prentenkabinet (14:35-15:00)**

- Presenters: RADICI, Marco

## **Discussion - Hof Van Liere, Prentenkabinet (15:00-16:00)**

## Tuesday 09 December 2014

**Collinear QCD, TMD resummation and non-perturbative aspects in SIDIS processes - Building R, Room R218 (09:35-10:00)**

- Presenters: BOGLIONE, Mariaelena

**Non-linear evolution equations - Building R, Room R218 (10:00-11:00)**

- Presenters: BALITSKY, Ian

**Production of forward jets within high-energy factorization - Building R, Room R218 (11:00-11:25)**

- Presenters: KUTAK, Krzysztof

**Discussion - Building R, Room R218 (11:25-12:30)**

**Applications of the high-energy QCD effective action - Building R, Room R218 (14:00-14:25)**

- Presenters: MADRIGAL MARTÍNEZ, José Daniel

**High-energy resummation effects in Mueller-Navelet jet production at the LHC - Building R, Room R218 (14:25-14:50)**

- Presenters: WALLON, Samuel

**Impact factor for quark-antiquark-gluon jet production in diffractive DIS - Building R, Room 218 (14:50-15:15)**

- Presenters: BOUSSARIE, Renaud

**Discussion - Building R, Room R218 (15:15-17:30)**

## **Wednesday 10 December 2014**

### **Overview on transverse momentum resummation - Building R, Room 218 (09:30-10:30)**

- Presenters: FERRERA, Giancarlo

### **Soft gluons and the ordering problem - Building R, Room R218 (10:30-10:55)**

- Presenters: ANGELES MARTINEZ, Rene

### **Discussion - Building R, Room R218 (10:55-12:30)**

### **Gluon-gluon to Higgs in TMD and $k_T$ -factorization: SCET approach - Building R, Room R218 (13:30-14:00)**

- Presenters: ECHEVARRÍA, Miguel

### **Gluon-gluon to Higgs in TMD and $k_T$ -factorization: Small- $x$ framework - Building R, Room R218 (14:00-14:30)**

- Presenters: HAUTMANN, Francesco

### **Transverse momentum gluon density at low- $x$ - Building R, Room 218 (14:30-14:55)**

- Presenters: LYKASOV, Gennady

### **Discussion - Building R, Room R218 (14:55-16:00)**

## **Thursday 11 December 2014**

**Impact of gluon polarization on Higgs production at the LHC - Building D, Room D013 (09:00-09:25)**

- Presenters: PISANO, Cristian

**Gluon TMDs and quarkonium production in (un)polarized proton-proton collisions - Building D, Room D013 (09:25-09:50)**

- Presenters: LANSBERG, Jean-Philippe

**Higgs and Drell-Yan production in high luminosity proton-proton collisions - Building D, Room D013 (09:50-10:15)**

- Presenters: VAN HAEVERMAET, Hans

**Discussion - Building D, Room D013 (10:15-12:30)**

**Generating function for web diagrams - Building D, Room D013 (14:00-14:25)**

- Presenters: VLADIMIROV, Alexey

**Concluding remarks and future plans - Building D, Room D013 (14:25-16:00)**