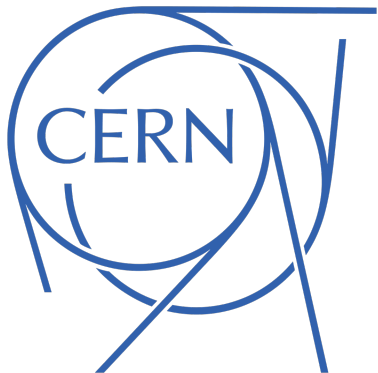


Opening remarks

S. Amoroso, F. Giuli, A. Glazov, O. Zenaiev

External xFitter meeting

02/05/2023



Welcome!

- From Tuesday 02/05 (10am) to Friday 05/05 (3pm)
- You can find the workshop agenda [here](#)
- For those at CERN we will meet:
 - on *Tuesday* (morning and afternoon) and *Thursday* (afternoon only) in **4/3-004** (TH discussion room)
 - all the *other sessions* will take place in **40/S2-C01** (Salle Curie)
- Morning sessions will be devoted to:
 - internal developments
 - brainstorming on new features to be added in the future release
 - actual coding and debugging (if necessary)
- During afternoon sessions we will have contributions about:
 - ongoing projects
 - future studies
- [Zoom](#) connection details

Today

11:00 → 12:30 **Session: Where do we stand with the current release?**

📍 4/3-004 - TH Discussion Room



11:00 **Opening remarks**

🕒 10m



Speaker: Dr Francesco Giuli (CERN)

11:10 **Current xFitter version**

🕒 30m



Speaker: Alexander Glazov (Deutsches Elektronen-Synchrotron (DE))

11:40 **Brainstorming**

🕒 50m



Speakers: Alexander Glazov (Deutsches Elektronen-Synchrotron (DE)), Dr Francesco Giuli (CERN), Oleksandr Zenaiev (Hamburg University), Simone Amoroso (Deutsches Elektronen-Synchrotron (DE))

14:00 → 15:30 **Session: Where do we want to go with future releases?**

📍 4/3-004 - TH Discussion Room



14:00 **xFitter usage in the SURGE and HEFTY collaborations**

🕒 30m



Speaker: Prof. Fred Olness (Southern Methodist University (US))

14:30 **xFitter usage at the EIC**

🕒 30m



Speaker: Dr TIMOTHY J HOBBS (Fermi National Accelerator Laboratory)

15:30 → 16:00

Coffee break

🕒 30m

16:00 → 17:30 **Session: Where do we want to go with future releases?** 📄

📍 4/3-004 - TH Discussion Room



16:00 **New ATLAS measurements sensitive to PDFs**

🕒 30m



Speaker: Amanda Sarkar (University of Oxford (GB))


16:30 **New CMS measurements sensitive to PDFs and feedback from the LHC EW WG**


🕒 40m




Speaker: Simone Amoroso (Deutsches Elektronen-Synchrotron (DE))


Wednesday


09:00 → 10:30 Session 4: Meson PDFs and FFs 📍 40/S2-C01 - Salle Curie 


09:00 **A model for pion collinear parton distribution function and form factor** 🕒 30m 
 Speaker: SIMONE Venturini (University of Pavia)


09:30 **Kaon PDF/FFs** 🕒 30m 
 Speaker: Hamed Abdolmaleki


10:30 → 11:00 **Coffee break** 🕒 30m


11:00 → 12:30 Debug and code developments 📍 40/S2-C01 - Salle Curie 

11:00 **A data-driven test of a quantum-statistics PDF parametrisation** 🕒 30m 
 Speakers: Federico Silveti (INFN - National Institute for Nuclear Physics), Marco Bonvini (INFN, Rome 1 Unit)


14:00 → 15:30 Session 3: Ongoing and future projects with xFitter 📍 40/S2-C01 - Salle Curie 


14:00 **AFB and high-x PDF behaviour** 🕒 30m 
 Speaker: Dr Juri Fiaschi (University of Liverpool)


14:30 **Exploring SMEFT couplings using Forward-Backward Asymmetry** 🕒 30m 
 Speaker: Oleksandr Zenaiev (Hamburg University)


15:00 **SMEFT studies with EIC and LHeC DIS pseudo data** 🕒 30m 
 Speaker: Chiara Bissolotti (Argonne National Laboratory)

15:30 → 16:00 **Coffee break** 🕒 30m

16:00 → 17:30 Session 3: Ongoing and future projects with xFitter 📍 40/S2-C01 - Salle Curie 

16:00 **The L2 sensitivity paper** 🕒 30m 
 Speakers: Joey Huston (Michigan State University (US)), Prof. Pavel Nadolsky (Southern Methodist University)

16:30 **Quantification of the epistemic PDF uncertainty** 🕒 30m 
 Speaker: Aurore Courtoy (Istituto de Física, UNAM)

17:00 **Bézier curves and pion PDFs with xFitter** 🕒 30m 
 Speaker: Lucas Kotz

Thursday

09:00 → 10:30 **Session 4: Debug and code developments** 📍 40/S2-C01 - Salle Curie

09:00 **N3LO PDF evolution and APFEL update** 🕒 30m
 Speaker: Dr Valerio Bertone (C.E.A. Paris-Saclay)

09:30 **DYTURBO interface and its applications** 🕒 30m
 Speaker: Stefano Camarda (CERN)

10:30 → 11:00 **Coffee break** 🕒 30m

11:00 → 12:30 **Session 4: Debug and code developments** 📍 40/S2-C01 - Salle Curie

11:00 **Recent developments on TMD-PB fits** 🕒 30m
 Speakers: Hannes Jung (Deutsches Elektronen-Synchrotron (DE)), Sara Taheri Monfared (Deutsches Elektronen-Synchrotron (DE))

14:00 → 15:30 **Session 3: Ongoing and future projects with xFitter** 📍 4/3-004 - TH Discussion Room

14:00 **Including qT-resummation in DY and its impact on PDF fits** 🕒 30m
 Speaker: Alessandro Guida (Humboldt University of Berlin (DE))

14:30 **Running of the weak mixing angle at the LHC** 🕒 30m
 Speaker: Federico Vazzoler (Deutsches Elektronen-Synchrotron (DE))

15:30 → 16:00 **Coffee break** 🕒 30m

16:00 → 17:30 **Session 3: Ongoing and future projects with xFitter** 📍 4/3-004 - TH Discussion Room

16:00 **APPLfast update** 🕒 30m
 Speakers: Claire Gwenlan (University of Oxford (GB)), Mr Lucas Kunz (KIT - Karlsruhe Institute of Technology (DE))

16:30 **MATRIX interface to fast-interpolation tools** 🕒 30m
 Speakers: Stefan Kallweit (Universita & INFN, Milano-Bicocca (IT)), Tomas Jezo (WWU ITP)

17:00 **PineAPPL interface to xFitter and MSR mass studies with MCFM** 🕒 30m
 Speaker: Dr Toni Makela (NCBJ)

Friday

09:00	→ 10:30	Debug and code developments	📍 40/S2-C01 - Salle Curie	✎
	09:00	Impact of J/psi production data on PDFs - bug report	🕒 30m	✎
		Speaker: Chris Flett (IJCLab)		
10:30	→ 11:00	Coffee break	🕒 30m	
11:00	→ 12:30	Statistical analysis and closing remarks: Session 5	📍 40/S2-C01 - Salle Curie	✎
	11:00	Bayesian PDF fits to ZEUS high-x data 📄	🕒 20m	✎
		Speaker: Michiel Botje (Nikhef National institute for subatomic physics (NL))		

- Probably we will have a contribution by Bogdan about recent developments of statistical models and how they can be introduced to xFitter (TBC)
- Last presentation before lunch

Coffee breaks, meals and social event

- Coffee breaks can be done either in the **4/2-011** (TH common room), **B40 cafeteria** or **R1**
- R1 has been renewed and now it is back at full capacity
 - Opening hours: 6am – 10pm
- Social dinner on Thursday evening:
 - We can decide between fondue ([Le Gruyerien](#) in Planpalais, Geneva) or pizza ([Luigia Accademy](#) in Meyrin village)
 - Other options available nearby
 - We can grab a drink at R1 before going to dinner together
- We wish you a fruitful workshop! 😊