

2022 CTEQ Summer School on QCD and Electroweak Phenomenology

PITT PACC University of Pittsburgh, PA, USA July 6-16, 2022.



CTEQ

Zack Sullivan
Brian Batell
Fred Olness

CTEQ

2022 CTEQ Summer School [The school will be held in person]

6–16 Jul 2022
Pittsburgh PA
America/Chicago timezone

Overview

[Main School Webpage](#)

[Application Form at AJOL](#)

[Draft Schedule](#)

Contact

cteq.school@gmail.com



The **2022 CTEQ Summer School on QCD and Electroweak Phenomenology** will be held at the **University of Pittsburgh, PA, USA July 6-16, 2022**. The CTEQ school provides a focused introduction to perturbative quantum chromodynamics along with applications and recent experimental results. Additionally, the school will include "hands-on" tutorial sessions on Machine Learning and Monte Carlo event generators organized in concert with the MCnet Collaboration. The school is ideally suited for advanced graduate students and young postdocs.

The school will be held in person.

Note: participants arrive on the evening of Wednesday 6 July 2022, and depart in the morning of Saturday 16 July 2022. Additional details to follow.

Agenda:

2022 Pittsburgh School

2021 MCnet-CTEQ Virtual School

2023+ Future schools

2022 CTEQ School Schedule

6 July 2022	07 Jul 2022	08 Jul 2022	09 Jul 2022	10 Jul 2022	11 Jul 2022	12 Jul 2022	13 Jul 2022	14 Jul 2022	15 Jul 2022	16 Jul 2022
Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Arrive	Day 1	Day 2	Day 3	Day 4	Free Day	Day 6	Day 7	Day 8	Day 9	Depart
7:30 - 8:45	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	Breakfast	
9:00 - 10:00	Intro 1 Nadolsky	Intro 3 Nadolsky	Higgs 1 Mistlberger	Higgs 2 Mistlberger		Jets 1	Jets 2	EW & Higgs 1 Mellado	EW & Higgs 2 Mellado	
10:00 - 10:30	Coffee	Coffee	Coffee	Coffee		Coffee	Coffee	Coffee	Coffee	
10:30 - 11:30	MC Intro 1 Ilten	MC Intro 3 Ilten	Vec Boson 1 Boughezal	Vec Boson 2 Boughezal		PDF 1 Lin+Yuan	PDF 2 Lin+Yuan	QCD/Top 1	QCD/Top 2	
11:45 - 13:00	Lunch	Lunch	Lunch	Lunch		Lunch	Lunch	Lunch	Lunch	
13:00 - 14:00	Intro 2 Nadolsky	Intro 4 Nadolsky	Tut. Lec 1	Tut. Lec 2		Machine Learning 1 Isaacson	Machine Learning 2 Isaacson	Neutrino 1 Hobbs	Neutrino 2 Hobbs	
14:00-14:30	Coffee	Coffee	Coffee	Coffee		Coffee	Coffee	Coffee	Coffee	
14:30-15:30	MC intro 2 Ilten	DIS 2 Reimer	MC Tutorial	MC Tutorial	Boat ride???	ML Tutorial	ML Tutorial [Rm 11 NOT available]	EFT 1 Dawson	EFT 2 Dawson	
15:30+	DIS 1 Reimer									
18:30 - 19:30	Dinner	Dinner	Dinner	Dinner		Dinner	Dinner	Dinner	Dinner	
19:30 - 21:00	Recitation	Recitation	Recitation	Recitation		Recitation	Recitation	Recitation	Recitation	
21:00 - 22:30	NightCap	NightCap	NightCap	NightCap		NightCap	NightCap	NightCap	NightCap	

Application List

[download, xls, ratings, Zip || PDFs] , map

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z + All ® [CTEQ2022 CTEQTUNG2021 : Active Inactive]

Click on each applicant's name to view the application. Create or manage your custom lists.

#	Name	Received	LastUpdated	Degree	Year	Degree_Institution
1	Alcerro Alcerro, Luis Fernando	2022/03/15	2022/03/15	PhD in physics	2024/12 exp	Department of Physics & Astronomy, University of Kansas
2	Carey, Sam	2022/03/09	2022/03/09	PhD	2024/08 exp	Wayne State University, Physics and Astronomy
3	Clarke, Emma Cossette	2022/03/16	2022/03/16	PhD	2024/08 exp	Carnegie Mellon University, Physics
4	Dong, Zhongtian	2022/03/16	2022/03/16	Ph.D.	2025/12 exp	
5	Figueiredo, Gustavo	2022/03/16	2022/03/16	Ph.D.	2025/05 exp	Florida State University
6	Gaid, safe	2022/03/06	2022/03/11	Ph.D		University of Batna 1, department of physics
7	Ghira, Andrea	2022/03/17	2022/03/17			
8	Haidet, Alexander Robert Fecile	2022/03/14	2022/03/14	PhD		Florida State University
9	Hyka, Dafina	2022/03/10	2022/03/10	Associate Professor	2014/12	Ph.D in Computational Physics, Department of Physics, I
10	Ke, Yan	2022/03/04	2022/03/04	Ph.D.	2023 exp	Department of Physics and Astronomy
11	Olness, Fredrick I	2022/02/17	2022/02/17			
12	Simsek, Kagan	2022/02/19	2022/02/20	PhD	2025/06 exp	Physics Department
13	Suslu, Can	2022/03/02	2022/03/02	BS	2022/05 exp	Bilkent University
14	Wang, Si	2022/03/15	2022/03/15	Ph.D		

14 entries

DISTRIBUTION LIST

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ABCDEFGHIJKLMNOPQRSTUVWXYZ + All [CTE]

Click on each applicant's name to view the application. Create or ma

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1	Alcerro Alcerro, Luis Fernando	2022/03/15	2022/03/15
2	Carey, Sam	2022/03/09	2022/03/09
3	Clarke, Emma Cossette	2022/03/16	2022/03/16
4	Dong, Zhongtian	2022/03/16	2022/03/16
5	Figueiredo, Gustavo	2022/03/16	2022/03/16
6	Gaid, safe		/17
7	Ghira, Andrea		/17
8	Haidet, Alexander Robert		/14
9	Hyka, Dafina		/10
10	Ke, Yan		/04
11	Olness, Fredrick I		/17
12	Simsek, Kagan		/20
13	Suslu, Can		/02
14	Wang, Si	2022/03/15	2022/03/15



Group	2019 Responsible	D
ATLAS	Joey	Joey
CMS	Nikos	Nikos
JLab	Thia	Thia
EIC User Group (Bernd Surrow)	Fred	Fred
Pheno Conf List	Tao	Tao/Joni
LPC-CERN	Fred	Fred
LPC-Fermilab	???	???
DPF	Tao	Tao
Inspires Post	Fred	Fred
Fermilab	Jorge	Jorge
Intensity Frontier	Jorge	Jorge
QCD & Hadronic Ph	Jianwei	Jianwei
LHC-B	Joey (via ronan McNulty?)	Joey (via ronan McNulty)
APS/DNP APS/GHP	Paul	Paul
Lattice QCD List	Huey-Wen	Huey-Wen
Hadronic Physics Co	Huey-Wen	Huey-Wen

2022 Numbers ... in progress

Student Reg Fee				\$800	
Student Costs					\$703
	per day	days		Total	
Rooms		36	10	\$360	
Board		38	9	\$343	
Lecturer Costs (in Hotel)					\$198
	per day	days		Total	
Rooms		\$160	10	\$1,600	
Board		\$38	9	\$343	
Lecturer Costs (in Dorm)					\$110
	per day	days		Total	
Rooms		\$72	10	\$720	
Board		\$38	9	\$343	
Expenses	Days	Per day		Estimate	
Lecturers (in hotel)	44	\$198		\$8,719	
Lecturers (in dorm)	30	\$110		\$3,305	
	Number/per	Cost			
Coffee Breaks	8	\$493		\$3,944	
night cap	8	2000		\$16,000	
Free Day bus & Activity				\$2,000	
Lecturer Airfare	8	700		\$3,500	
Lecturer Taxi/parking	700	400		\$1,100	
Promo Items (backpack/paper)				\$2,000	
Total Expenses				\$40,567	



MCnet-CTEQ Summer School 2021 VIRTUAL

5–16 Sep 2021

America/Chicago timezone

Enter your search term



Overview

[2021 Schedule Overview](#)

[Timetable](#)

[Participant List](#)

[MCnet Schools](#)

Local Organisers

[✉ frank.siegert@cern.ch](mailto:frank.siegert@cern.ch)

[✉ school@montecarlonet...](mailto:school@montecarlonet...)

[✉ olness@smu.edu](mailto:olness@smu.edu)

[✉ Zack.Sullivan@IIT.edu](mailto:Zack.Sullivan@IIT.edu)



The 2021 CTEQ-MCnet Summer School will be held **ONLINE only in a virtual format.** The lectures will be presented Monday--Thursday September 6--9 and 13--16.

[YouTube Channel \(Collected videos of lectures\)](#)

It is the 14th MCnet Summer School and 27th CTEQ School.

- 127 registered participants
 - 33 only registered in the week before or during the school, probably to attend selected lectures
- Attendance for lectures (on Zoom) at maximum ~80 (highest in the first days)
 - lectures were recorded, so there might be some more students
 - up to now typically 20-100 views per video on Youtube
- Attendance in evening recitation sessions on Gather dropped from ~60 at start of school to ~20 towards end
- Tutorials attendance hard to judge
 - Zoom problems on first afternoon might have deterred participants
- We collected feedback in two rounds: early short feedback on recitation sessions and full feedback after the school

Name

El Abassi Abderrazaq
 Test Account
 Apriadi Salim ADAM
 Brahim AITBENCHIKH
 Malak Ait Tamlihat
 Luis Fernando Alcerro Alcerro
 Mohammad MAhdi Altakach
 Jesús Ricardo Alvarado García
 Mohamed Aly
 Zahra Badiéian
 Petr Baron
 Fatima Bendebba
 Ankit Beniwal
 Gloria Bertolotti
 Kartik Bhide
 Albert Gyorgy Borbely
 Erik Buhmann
 Oleksandr Burlayenko
 Emmet Byrne
 Simone Caletti
 Savannah Clawson
 Naomi Cooke
 Francesco Curcio
 Kuldeep Deka
 Nasim Derakhshanian
 Aman Mukesh Desai
 Chinmoy Dey
 Sascha Diefenbacher
 Xier Du
 Sandeep Dudi
 Matteo D'Uffizi
 Yassine El Ghazali

Ali El Moussaouy
 Conor Elrick
 Shalini Epari
 Sofie Nordahl Emer
 Rafik Er-Rabit
 Lars Ferencz
 Pablo Fierro Rojas
 Julian Fischer
 Lois Flower
 Guglielmo Frattari
 Diksha Garg
 Alessandro Gavardi
 Arpan Ghosal
 Angelica Maria Goncalves Dos Santos
 Alessandro Guida
 Alan Henning
 Johannes
 Mourad H
 Shuhui H
 Ross Hun
 Hajar Ima
 Muhammm
 Si Hyun J
 Lidia Kal
 Tamasi K
 Leila Kha
 Henry Kle
 Orcun Ko
 Ramin Ko
 Mohamed
 Ardita Ku
 Santeri La
 Joon-Bin Lee

Andrew Lifson
 Giovanni Limatola
 Jennifer Anne Lue
 Torbjöm Lundberg
 Arun Madhu
 Joseph Maerovitz
 Giacomo Magni
 Suvam Maharana
 Matteo Maltoni
 Laboni Manna
 Giulia Marinelli
 Rok Medves
 Peter Meinzinger
 Umberto Molinatti
 Valentin Moos
 Hanieh Moradi Pasha

Renat Sadykov
 Anton Safronov
 Yoxara Sánchez Villamizar
 Jay Ajitbhai Sandesara
 M Gabriel Santiago
 Pratixan Samah
 Meenakshi Sharma
 Yehudi Simon
 JAGBIR SINGH
 Sahibjeet Singh
 Vivek Singh
 Sukanya Sinha
 Manuel Sommerhalder
 Giulia Sorrentino
 Tobias Striegl
 Juan Salvador Tafoya Vargas



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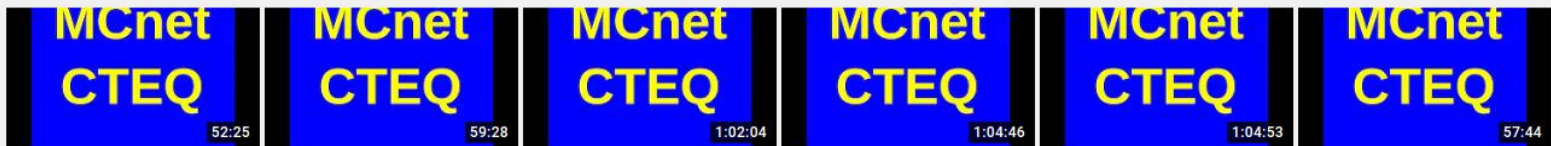
128 participants

First Name	Last Name	Affiliation
Adam	Rennie	University of Glasgow (GB)



Uploads

≡ SORT BY



Higgs #1 Bruce Mellado

45 views · 6 months ago

Electroweak Corrections #2
Marek Schoenherr

18 views · 6 months ago



Measurement & Monte Carlo
#2 Jon Butterworth

25 views · 6 months ago



Heavy Ion #2 Antonio Ortiz

9 views · 6 months ago



Electroweak Corrections #1
Marek Schoenherr

17 views · 6 months ago



Measurement & Monte Carlo
#1 Jon Butterworth

24 views · 6 months ago



Heavy Quarks #1 Zack
Sullivan

18 views · 6 months ago

Heavy Ion #1 Antonio Ortiz

14 views · 6 months ago



Exp Results from LHC #2
Sasha Glazov

6 views · 6 months ago



Soft Modeling & Heavy Ion #2
Leif Lonnblad

7 views · 6 months ago



Jets #1 Zoltan Nagy

21 views · 6 months ago



Exp Results from LHC #1
Sasha Glazov

22 views · 6 months ago



Soft Modeling & Heavy Ion #1
Leif Lonnblad

27 views · 6 months ago



Matching & Merging #2
Simon Platzer

27 views · 6 months ago



Parton Showers #2 Stefan
Hoeche

35 views · 6 months ago



HIGGS/VBP #2 Valerio
Bertone

16 views · 6 months ago



DIS #2 Ingo Schienbein

16 views · 6 months ago

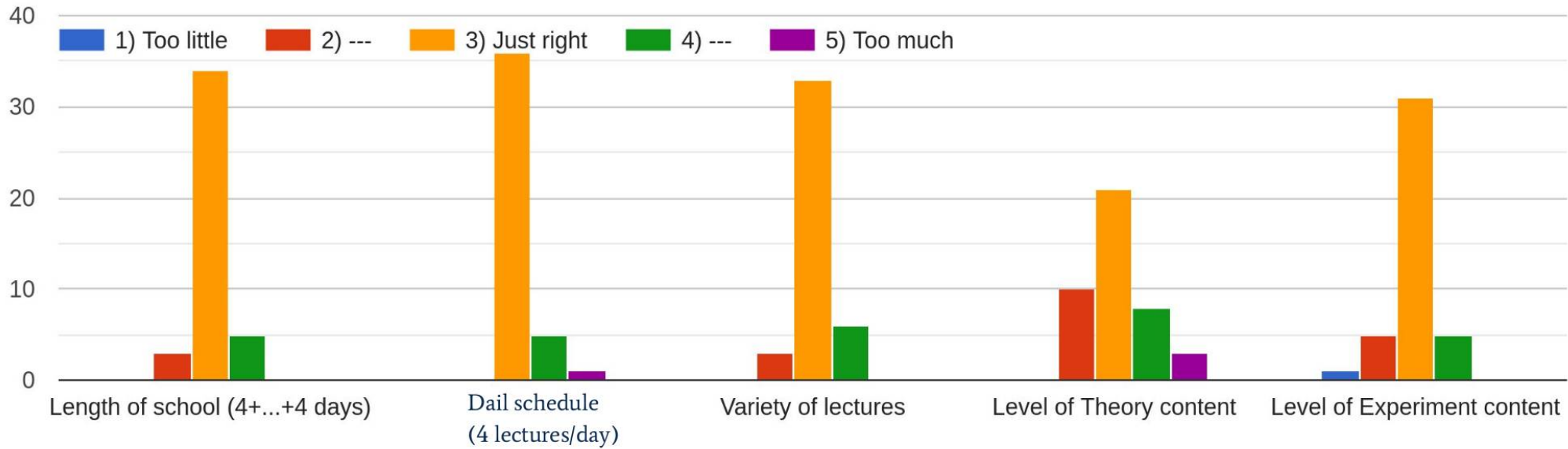


Matching & Merging #1
Simon Platzer

55 views · 6 months ago



Balance of School Components:



- ▶ All courses were at the right level.
- ▶ I know this is very difficult since we all have different levels, but i think i would have benefitted more from courses that are easier and slower, and where you dont have that much content but more time for it. So the lectures should be more like lectures, less like talks.
- ▶ Many great lecturers! Some lectures went a bit too fast, the QCD (Dave Soper) and Higgs/DY (Valerio Bertone) lectures I found very interesting, but I had to watch them again on YouTube to catch everything ;)
- ▶ I would have liked more theoretical lectures on the structure of a Monte Carlo generator, or regarding the parton shower. I know that the time was not so long, but I would have preferred to do these things in detail.
- ▶ For someone who's not working in the field of parton showers, sometimes the derivations were a bit fast and thus my understanding suffered at first.
- ▶ Although most of the lectures were comprehensible, some of them, I believe, were addressed more to the postdoctoral level participants. And there is nothing wrong with this, of course. I am sure that participants that were on that point of their academic path enjoyed them. In particular, I found Dr. Butterworth's lecture to be very inspiring.
- ▶ The given titles and contents of the lectures where very appropriate in my opinion and the level as such where never far off from what I desired. Given this, I can provide an observation that is true at least for myself: again, the level of the talks where very well chosen by the clearly experienced teachers. However, the lectures felt exactly like that: talks. Even though the content of individual sections or slides where appropriate, my impression is that the online format gave the lecturers an opportunity to switch from chalk/white board teaching to using slides. The consequence is that they most likely fit quite a lot more information into the allocated time than what would have been possible when lecturing from a board in a class room. The density of information within the hour was somewhat higher than I would expect under 'normal' circumstances and this made it a bit more difficult to absorb four hours (+ more) some of the days. On top of that, distractions at home in the form of other tasks where present and I can say that for my part, these things made it somewhat difficult to formulate relevant and insightful questions. At the end of lectures, I was generally still processing a lot of information.
- ▶ I think that most of the lectures were at the right level of complexity, keeping the contact with the most relevant physical aspects.

Future Schools ...

open for discussion

