

JENNIFER2 Summer School

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JENNIFER2 kickoff meeting

12 September 2019, Wien

Starting point: the 2018 school

See <https://agenda.infn.it/event/14407/timetable/#20180730.detailed>

- 31 students
- Took place at Trieste
- Very positive feedback from the students

	Mon Jul 30	Tue Jul 31	Wed Aug 1	Thu Aug 2	Fri Aug 3
8h30-10am	Statistics for HEP (G. Cowan)	Open questions in fundamental physics (F. Sala)	Neutrino expt. (T. Wongijrad)	QFT and flavor phenomenology (Y. Grossman)	QFT and flavor phenomenology (Y. Grossman)
10-10h30am	Coffee break	Coffee break	Coffee break	Coffee break	Coffee break
10.30-noon	Neutrino expt. (T. Wongijrad)	Neutrino expt. (T. Wongijrad)	QFT and flavor phenomenology (Y. Grossman)	Quark flavor expt. (K. Trabelsi)	Quark flavor expt. (K. Trabelsi)
noon-1pm	Lunch	Lunch	Lunch	Lunch	Lunch
1pm-2.30pm	Statistics for HEP (G. Cowan)	Quark flavor expt. (K. Trabelsi)	Excursion	Diamond-sensors (Bosisio/Lanceri)	
2h30-3pm	Coffee break	Coffee break	Excursion	Coffee break	
3-4.30pm	Open questions in fundamental physics (F. Sala)	QFT and flavor phenomenology (Y. Grossman)	Excursion	Diamond-sensors demo (Bosisio/Lanceri)	
	Dinner	Reception	Social dinner	Dinner	

The J2 summer school: at KEK

Advantages:

- Direct relation to the experimental facilities used by J2 members
- Better ability to attract future participation in our experiments
- Opportunity for interaction b/w European and Japanese students

And challenges:

- Much higher travel cost
- Squeezed between semester end in Europe and onset of summer heat in Japan
- Potential overuse of KEK's outreach capacity, already busy with existing summer outreach programs

General parameters

- Summer school committee:

- Zdenek Dolezal
- Takashi Kobayashi
- Antonio Passeri
- Federico Sanchez
- Abi Soffer
- Shoji Uno
- Admin help from Ritsuko Ota
- Much support from Junji Haba

Supported by J2

Supported by KEK

- 15 European students + 5 Japanese students

- Schedule:

- Advertisement: end of October
 - Submission deadline: end of January
 - Admission decisions: end of February
 - School dates: 6-15 July 2020
- } Tentative

The agenda we are considering

	Mon 6	Tue 7	Wed 8	Thu 9	Fri 10	Sat 11	Sun 12	Mon 13	Tue 14	Wed 15
8:30-10:00	Lecture	Lecture	Lecture	Lecture	Tokai	Nikko etc.	Free	Lecture	Lecture	Student reports
10:30-12:00	Lecture	Lecture	Lecture	Lecture				Hands-on	Hands-on	Student reports
1:00-2:30	Lecture	Lecture	Lecture	Lecture				Hands-on	Student reports	
3:00-4:30	Hands-on	Hands-on	Hands-on	Hands-on				Light source	ILC	
5:00-6:30 or after dinner	Student posters, reception	KEK intro	B factory	Famous physicist lecture				Science communication		

Physics lecture: 14-15 blocks → (block = 1.5 hours)

Hands-on labs: 7-6 blocks

Tours

Lecture topics (14 blocks)

- 2 blocks: HF theory
- 2 blocks: neutrino theory
- 2 blocks: Detectors & detector physics
- 3 blocks: HF experiment
- 3 blocks: Neutrino experiment
- 2 block: basic statistics: concepts of fitting, limits

Speakers selection and invitation are underway

Hands-on activities (7 blocks)

- With 6-7 blocks, each group of students could do 2 activities
- We will have 4 experimental setups:
 - Wire chamber (Uno-san)
 - Scintillator (Uno-san) } Used many times with high-school students
 - LAr detector or gas TPC (Kobayashi-san)
 - SVD module (Christoph Schwanda) - need to devise the activity, not trivial since SVD output is already highly processed.
- Probably also analysis activities
 - Probably based on the Belle II masterclasses
 - But not clear if there is time!

Tentative budget

Description	Unit cost	Total
Travel	€ 940	€ 14,100
Dorms	€ 168	€ 2,520
Per diem	€ 420	€ 6,300
excursion	€ 2,000	€ 2,000
non-J2 lecturers	€ 2,000	€ 4,000
Total		€ 28,920

Summary

- Discussions and preparations are still underway but should be finalized soon
- Application period ~end of October to ~end of January
 - Students at J2 institutions are a natural target audience
- School dates 6-15 July