

FCC-France

Theory survey results

G.Cacciapaglia and B.Fuks

People:

(only permanents counted)

Interested people: 24

Asmaa Abada (IJCLab), Alexandre Arbey (IP2I), Damir Becirevic (IJCLab), Geneviève Bélanger (LAPTH), Karim Benakli (LPTHE), Aoife Bharucha (CPT Marseille), Felix Brümmer (LUPM), *Giacomo Cacciapaglia* (IP2I), Jérôme Charles (CPT Marseille), Eric Conte (IPHC), Aldo Deandrea (IP2I), Michele Frigerio (L2C), *Benjamin Fuks* (LPTHE), Mark Goodsell (LPTHE), Diego Guadagnoli (LAPTH), Björn Herrmann (LAPTH), Marc Knecht (CPT Marseille), Sabine Kraml (LPSC), Nazila Mahmoudi (IP2I), Filippo Sala (LPTHE), Ingo Schienbein (LPSC), Hua-Sheng Shao (LPTHE), Ana Teixeira (LPC), Savvas Zafeiropoulos (CPT Marseille)

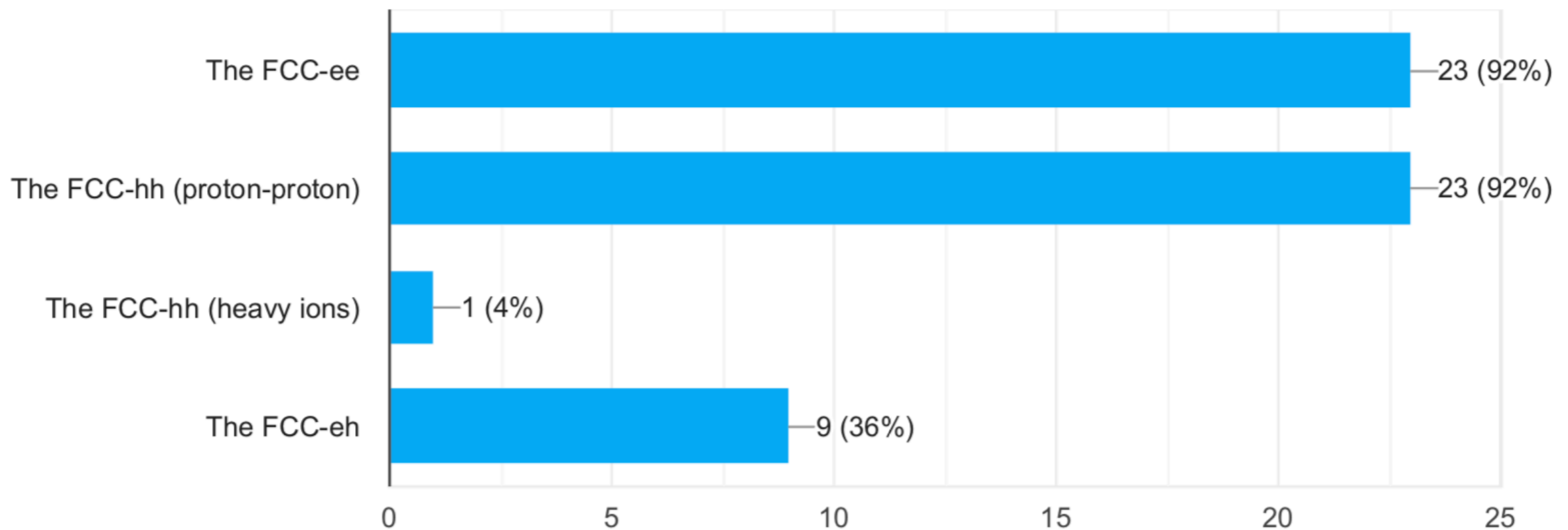
Institutes: 10

CPT Marseille (4), IJCLab Paris Saclay (2), IP2I Lyon (4), IPHC (1), L2C Montpellier(1), LAPTH (3), LPC (1), LPSC Grenoble (2), LPTHE Paris (5), LUPM Montpellier (1).

Which collider?

Which FCC collider mode would you be interested in? Several choices are possible.

25 responses



Which collider?

	FCCee	+ FCChh	+FCCeh	+H ions	Total
BSM	1	9	5	1	16
SUSY		2			2
Compositeness		2			2
Dark Matter		4			4
Higgs		3	3	1	7
EW precision	2	1	2	1	6
QCD		2	1		3
Flavour (B + top)	2	2	2		6
EFT			1		1

Recent publications

Recent publications by the French TH community (22 papers):

- Compositeness: 2007.11931, 2004.09825, 2002.01474
- Supersymmetry: 2007.08498, 2006.16267, 2006.07854, 1910.12846
- Dark matter (non-SUSY, non-composite): 2007.11697, 2007.02655, 2005.10277
- Other BSM: 2001.10541
- Flavour physics: 2006.04824
- Higgs physics: 2005.10117, 1912.13001, 1909.06808, 1908.03952
- Top physics: 2005.08102
- QCD: 2004.04213
- Lattice: 2004.01687, 1909.08517, 1908.09771
- Heavy ions: 2007.09100

+ 22 older papers

Talks to be given at the Annecy meeting:

- 9 volunteers to speak
- Potential topics: light DM, di-Higgs precision physics, lattice QCD and PDFs, light composite states, flavour physics, *etc.* and many more, depending on the needs

Recent publications

	FCChh	FCSee	Tera-Z	H ions
resonances (1-10 TeV)	4			
very light resonances		1	1 (+1)*	
di-Higgs	2	(+1)*		
U(1) mixing	1			
B mesons			1	
rare top decays	1			
QCD	1			
PDFs (lattice)	3			1
TOTAL	12	1	2	1

* = papers in preparations that I (Giacomo) know of.

Outlook

- The interest in the Theory community is very strong!
- Several people already offered to give a talk at the next FCC-France meeting: a theory session would be useful.
- Most work done relevant for FCC-hh.
- Efforts are on-going on FCC-ee (Tera-Z and various energies)
- Personal view: Theorists should also listen to the needs of the experimental community.