



EXPRESSION OF INTERESTS FOR FCC-EE

PROLAY MAL, NISER

GAGAN MOHANTY, TIFR

Online Meeting for Indian FCC-ee Groups
July 18, 2023

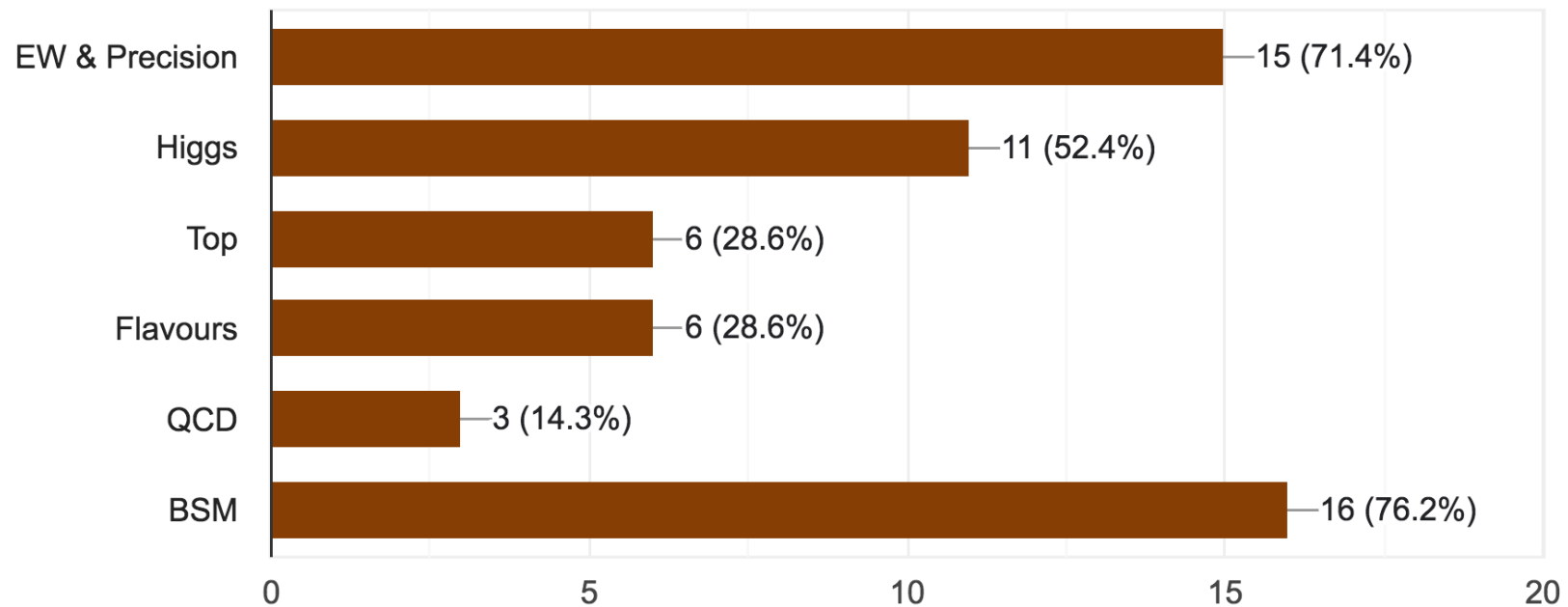
MODUS OPERANDI SO FAR

- FCC-EE PRESENTATIONS BY EMMANUEL PEREZ AND MOGGENS DAM ON JAN 17, 2023 ON PHYSICS AND DETECTORS, RESPECTIVELY – THANKS TO G. BERNARDI
 - [HTTPS://INDICO.CERN.CH/EVENT/1239356/](https://indico.cern.ch/event/1239356/)
 - ANNOUNCED/OPEN TO ALL INDIAN EXPERIMENTALISTS WORKING ON CMS, BELLE II AND PARTLY TO HEP PHENOMENOLOGISTS/THEORISTS HAVING IMMEDIATE INTEREST ON E+E- PHYSICS
 - ZOOM RECORDINGS WERE MADE AVAILABLE AFTERWARDS
- EXPRESSION OF INTERESTS ON FCC-EE WITH QUESTIONNAIRE SURVEYED ONLINE (TILL JAN 22, 2023)
 - **21 PHYSICISTS** FROM **16** INDIAN INSTITUTIONS PARTICIPATED IN THIS SURVEY
 - INTERESTS ON A BROAD VARIETY OF PHYSICS AND DETECTOR TOPICS WERE EVIDENT
 - THE SUMMARY WAS PRESENTED AT 6TH FCC PHYSICS WORKSHOP IN CRACOW, JAN 22-27, 2023
- NATIONAL CONTACTS FOR INDIA – JAMES LIBBY, PROLAY MAL & GAGAN MOHANTY
 - JIM OPTED TO RELIEVE HIM DUE TO HIS OTHER RESPONSIBILITY WITH BELLE 2

PHYSICS INTERESTS

What is/are your physics interests in FCC-ee?

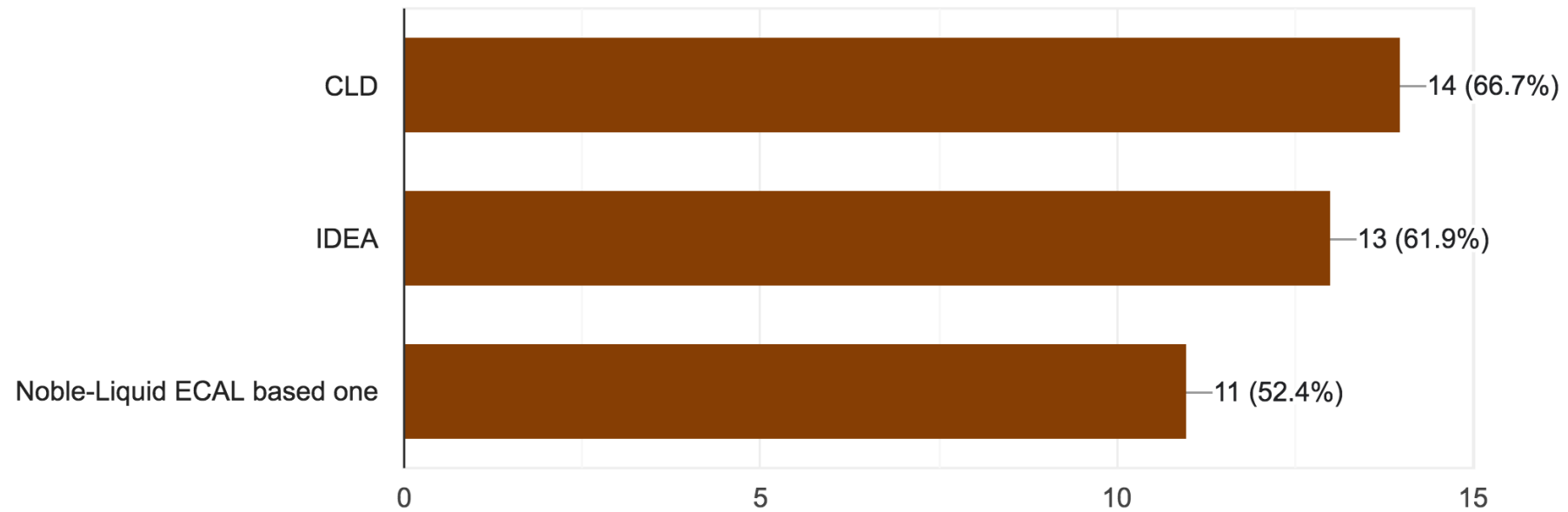
21 responses



CLD/IDEA/NOBLE-LIQUID ECAL

Which FCC-ee detectors would you be interested to collaborate?

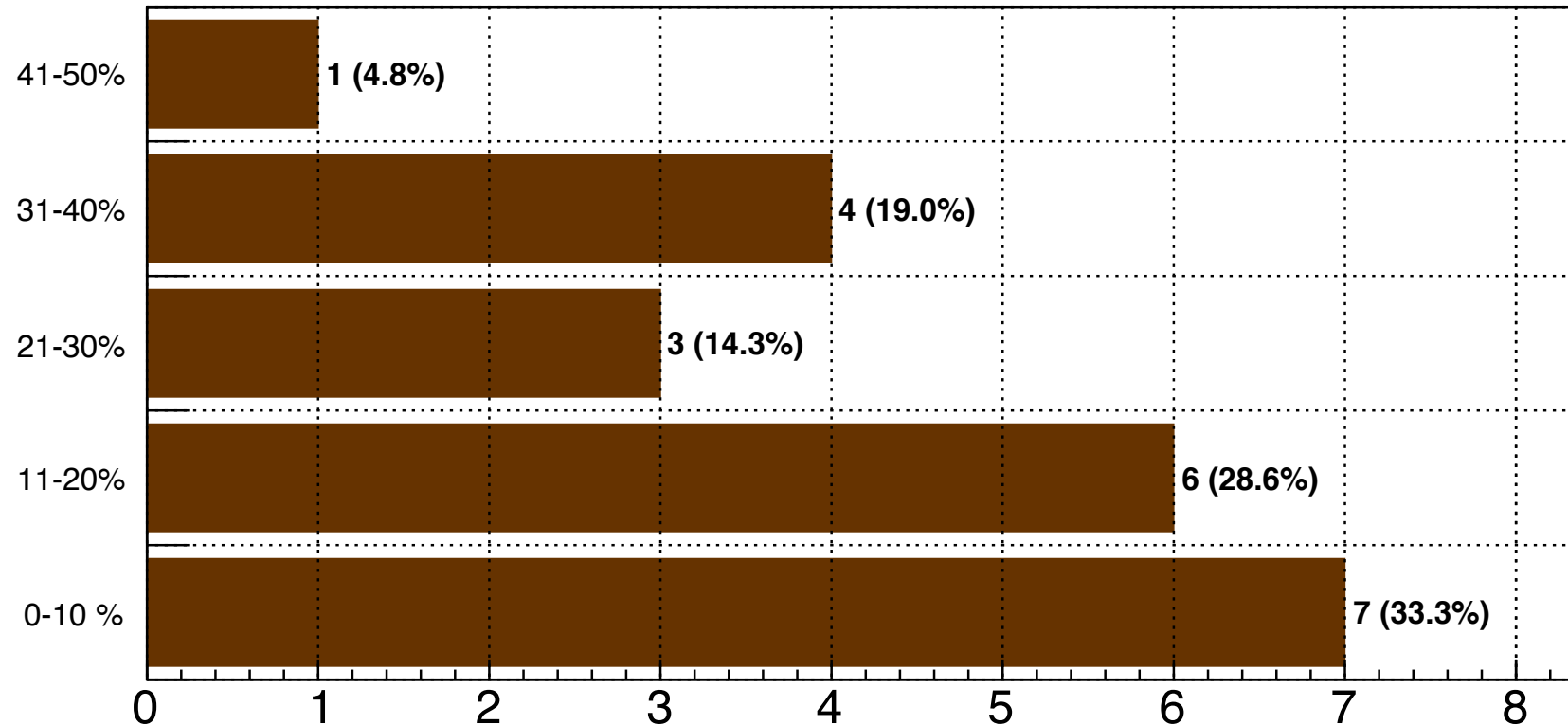
21 responses



PROJECTED TIME FRACTION (PHYSICISTS)

What is your projected fraction (in percentage) of your research time (only yourself) for next few years on FCC-ee?

21 responses



AGENDA FOR TODAY'S DISCUSSION

❑ WHAT ARE THE DETECTOR TECHNOLOGIES WE WOULD LIKE TO CONTRIBUTE?

❑ TOO MANY HARDWARE PROJECTS MAY NOT BE BENEFICIAL AND/OR LIKED BY THE FUNDING AGENCIES AT LATER STAGE, IF AT ALL FCC-EE BECOMES REALITY!

❑ SILICON-TRACKING & SILICON/LIQUID ARGON CALORIMETER

❑ SILICON/SEMICONDUCTOR DETECTORS ARE OBVIOUS AS THEY ARE IN-SYNC WITH NATIONAL MISSION

❑ HOW TO PROCEED TILL 2025 EUROPEAN STRATEGY MEETING?

❑ ONLY SIMULATION STUDIES FOR THE BENCHMARK PHYSICS PROCESSES?

❑ DETECTOR R&D AND PROTO-TYPING?

❑ WHAT ABOUT FUNDING – DAE/DST, BNRS?

❑ NO INTERNATIONAL TRAVEL FUNDS, DOMESTIC TRAVEL FUNDS MAY BE PURSUED IN JUSTIFICATION TO WORK WITH OTHER INSTITUTES/UNIVERSITY WITHIN THE COUNTRY

❑ DEFINITELY PERSON-POWER (STUDENTS AND/OR POSTDOC)

❑ DETECTOR R&D (?) IF YES, HOW TO START THE ACTIVITIES?

❑ MODEST FUNDS FOR NATIONAL MEETINGS ORGANIZATION

PLAUSIBLE ROADMAPS?

- ❖ List of Institutes/Universities to be finalized
 - ❖ Institutional endorsement would be a must at the first place!
 - ❖ Interested institute members should at least commit 0.1 FTE for 2024
- ❖ International FCC organization would have the engagement meeting towards the signing of the MoU between participating institute and CERN!
 - ❖ We can organize another joint-meeting with FCC-ee engagement office!
- ❖ Finalization of detector technologies would be contributed
 - ❖ Commitment for the list of simulation tasks to be performed
(No Full-simulation, neither detector geometry presently exist)
- ❖ Proceed for funding proposal with appropriate/suitable FAs!