

IGFAE Retreat 2021
Santiago de Compostela, July 5th 2022

Future plans and strategic timeline

Néstor Armesto

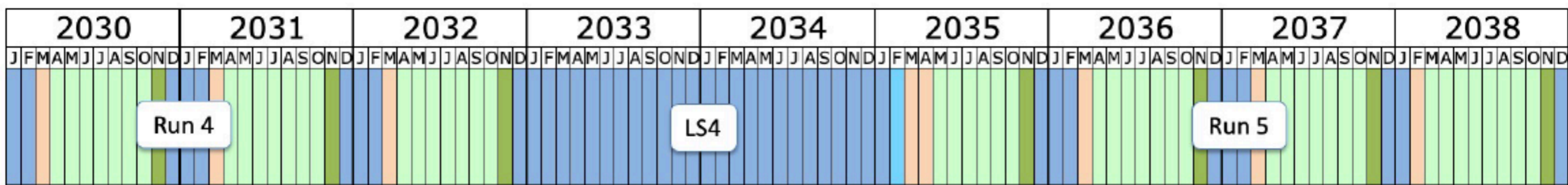
Instituto Galego de Física de Altas Enerxías *IGFAE*

Universidade de Santiago de Compostela

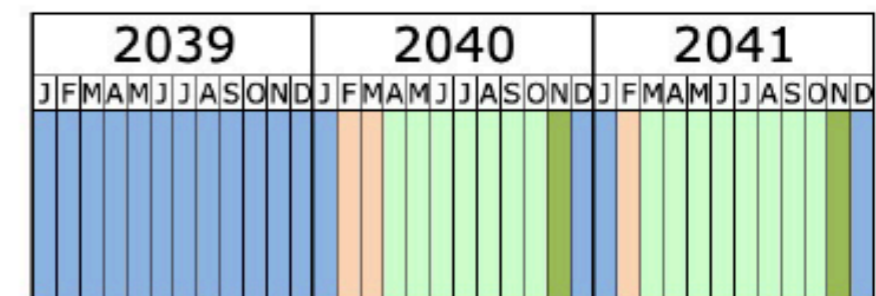
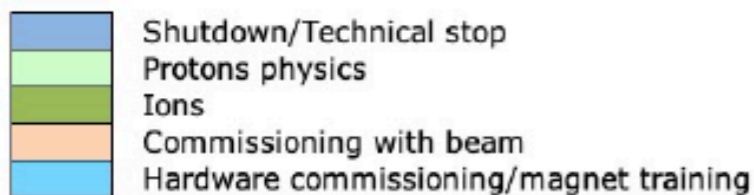
nestor.armesto@usc.es

CERN schedule:

Provisional long-term schedule



Last updated: January 2022



Mike Lamont in Chamonix LHC performance workshop, 24-27.01.2022.

17

Important deadlines:

- **Important deadlines:**

- Nupecc LRP 2024, expressions of interests just opened.
- APPEC LRP 2027?
- UESPP 2027: evaluation of the FCC; ILC in standby, no news from the CEPC.

- Impact of the **war in Ukraine** certain predict on all these aspects but difficult to quantify. CERN agreements with Russia and Belarus not to be renewed after 2024, now suspended. It may be very important in some communities (FAIR), unofficially estimated as 1 year delay on LS3 for the LHC.

Summary:

	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	...				
LHCB	LHCb: upgrade 1																								
			LHCb: upgrade 2?																						
HQCD	RHIC-II, HL-LHC for ions													Ions at the LHC in the 30's: lighter?											
			ep/eA colliders: EIC beyond 2030																						
STRI	Applications to hot dense QCD, thermalisation, condensed matter, cosmology, integrability, quantum information																								
AUGE	Auger to AugerPrime																								
NEXT	NEXT(100), RD51																								
			NEXT-nT?; RD51 for directional DM?; DUNE/HyperK																						
GRWA	LIGO, ET? ; relation with RPI, RP2 (IGNITE), RP3, RP4																								
NUCL	GSI, GANIL, ISOLDE																								
	FAIR (R ³ B), SPIRAL2, HIE-ISOLDE, FRIB																								
LACC	LaserPet as an isotope factor proof-of-concept, plasma acceleration, laser facility																								
TH	Renovate the staff; QIST																								
EXP	Other LHC experiments (CODEX-b)?; FCC?; ILC?; CTA?; Neutrinos (DUNE/HyperK)?; SKA? ; SWG0??? ; ...?; Detectors for medicine (IGNITE); QIST																								

Note: research programs are not isolated, everything mixed,...

LHCB: BSM with LHCb

HQCD: Hot and dense QCD

STRI: String theory

AUGE: Extremely energetic cosmic rays and neutrinos

NEXT: Dark Matter and the nature of neutrinos

GRWA: Gravitational Waves

NUCL: Nuclear structure and its astrophysical and cosmological implications

LACC: Laser Laboratory for Accelerator and Applications