

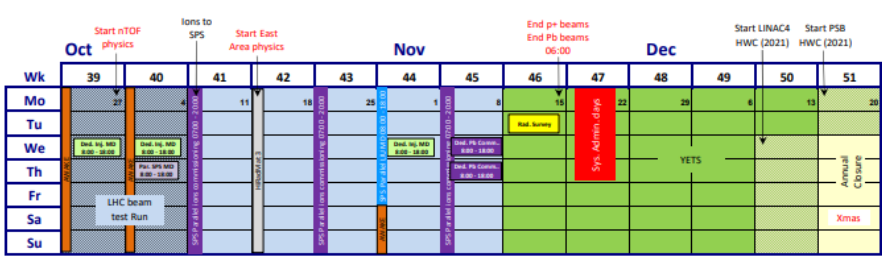
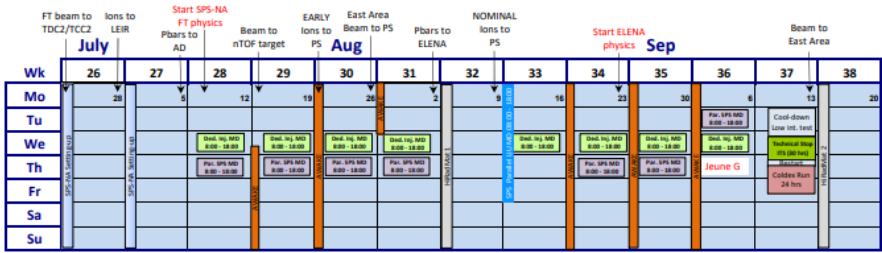
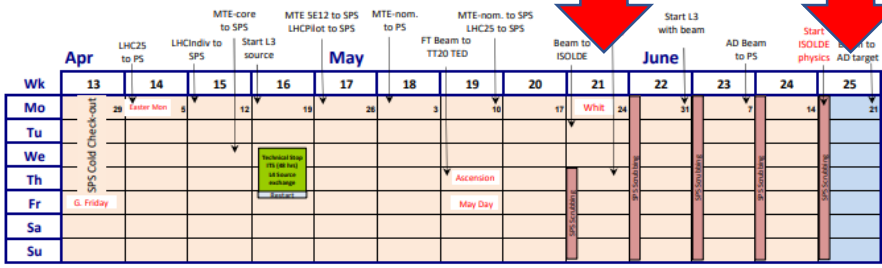
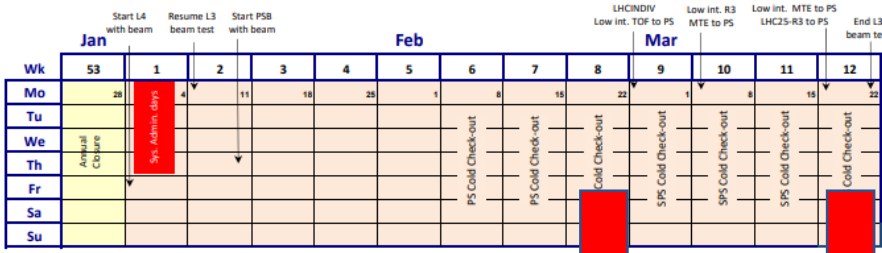


Coordinator's report
INTC 66
Karl Johnston

- Schedule 2021
- Beam requests
- Training and running experiments in 2021
- Publications

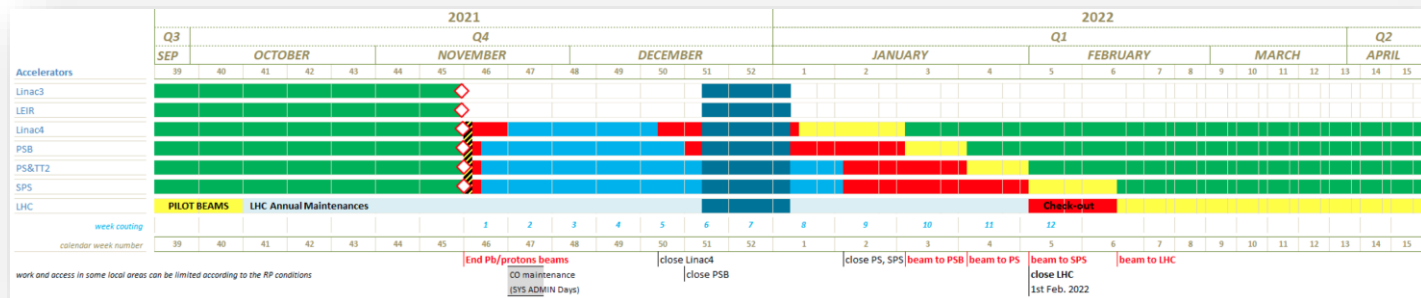
Injector Accelerator Schedule 2021

Approved by Reasearch Board on 02.12.2020



- Injector Complex MD Block (dedicated)
- Injectors Technical Stop
- Protons physics
- LHC beam test period
- Special Run
- HiRadMat Run
- AWAKE Run
- LIU parallel MD
- Pb ion commissioning
- Special interventions/stops
- CERN Official Holidays
- Controls system interventions
- SPS MD block (parallel)
- YETS & HWC 2021

- In spite of covid disruptions in 2020, ISOLDE will start physics with only a 2 month delay
- Protons to ISOLDE are due on 25 May for setting up BTY lines etc
- Low energy physics will start on 21 June.
- HIE ISOLDE towards end of July
- End of protons on 15 November.
- **Online physics run of 147 days (138 days to go!)**
- This would allow for winter physics programme of about 3-4 weeks.
- YETS in 2021 / 2022 is short. If ISOLDE can avoid a full winter shutdown e.g. cooling plant for HIE-ISOLDE, possibility to restart early in 2022: especially important for HIE-ISOLDE experimental backlog.
- NOTE: schedule to be revised in March '21.



Summary from last three meetings (INTC 63 summarises the status report review)

Row Labels	Sum of Shifts remaining for Run3	Count of experiments for run3
INTC 63	485	34
INTC 64	285.5	18
INTC 65	245	14
Grand Total	1015.5	66

NOTE: 266 shifts requested at this INTC. Eligible for beam in 2021 but lower priority, but if can be e.g. combined with other runs, they could be scheduled.

Quite a few LOIs at this INTC meeting. Need for a GUI soon to set priorities for development

Row Labels	Sum of Shifts remaining for Run3	Count of Shifts remaining for Run3_2
biophysics	9.5	1
COLLAPS	35	2
Collections: 163Ho	6	1
CRIS	99.5	4
Gandalph	8	1
HIE	371	20
IDS	97	8
IDS/ISOLTRAP	6	1
IDS/VANDLE	18	1
in-source / IDS	10	1
ISOLTRAP	42	4
MIRACLS	17	1
SSP	116	9
TAS	17	2
TISD	11	2
Travelling Setup	24	2
Travelling Setup; ECSLI	11	1
VITO	29	1
Windmill/IDS	22.5	1
Collections: 108Ag	30	1
PAC nuclear moments	12	1
WISARD	24	1
Grand Total	1015.5	66

Row Labels	Sum of Shifts remaining for Run3	Count of Shifts remaining for Run3_2
ISS	53	3
HIE	53	3
IS674	18	1
IS676	16	1
IS679	19	1
Miniball	236	14
HIE	236	14
IS483	11	1
IS553	6	1
IS556	36	1
IS557	10	1
IS563	12	1
IS566	10	1
IS587	15	1
IS591	21	1
IS595	21	1
IS597	12	1
IS618	24	1
IS646	21	1
IS654	22	1
IS656	15	1
N/A	644.5	46
XT03: Actar	28	1
HIE	28	1
IS581	28	1
XT03: Corset	12	1
HIE	12	1
IS550	12	1
XT03: Edinburgh	42	1
HIE	42	1
IS543	42	1
Grand Total	1015.5	66

Beam requests 2021

- Beam requests were sent to users on Dec 11
- Earlier than usual deadline of 27 January 2021 (to allow preparation of targets etc)
- Requests currently being analysed, semi- raw data opposite
- 2021 will be a light year for HIE-ISOLDE, as Miniball is not at CERN; Of the received requests only 5 for HIE-ISOLDE.
(hence the pressure to restart in 2022 for HIE when Miniball returns)
- 2021 will inevitably favour local groups and those able to run at least partly remotely.
- Schedule should be released in 2 parts e.g. June – Sept ; Sept – Nov.
- With likely early start in 2022, beam requests for at least part of next year to be sent out October/Nov 2021.

Row Labels	Count of Experiment	Sum of Requested shifts
Actar	2	12
COLLAPS	2	40
Corset/XT03	1	12
CRIS	5	72
IDS	5	38
IDS	5	50.5
IDS fast timing	6	25.001
IDS Vandle	1	15
IDS/TISD	1	2
ISOLTRAP	3	36
ISS	3	53
LA1 Bordeaux	1	12
Magnetic moments	2	8
MIRACLS	1	7
SSP	20	53
TAS	2	15
Thorium clock	2	11
TISD/ISOLTRAP	4	60
VITO	4	17
VITO	1	0
Wisard	1	24
Grand Total	72	562.501

	Jan				Feb				Mar				
WK	2	3	4	5	6	7	8	9	10	11	12	13	14
Mo	4	11	18	25	1	8	15	22	1	8	15	22	29
Tu													
We													
Th													
Fr													Good Friday
Sa													
Su													

	Apr				May				June				
WK	15	16	17	18	19	20	21	22	23	24	25	26	27
Mo	Easter	12	19	26	3	10	17	Whit Monday	31	7	14	Start of professor physics	28
Tu													
We													
Th							Ascension						
Fr						Official holiday							
Sa			Rest of May										
Su							Whit Sunday						

	July			Aug			Sep						
WK	28	29	30	31	32	33	34	35	36	37	38	39	40
Mo	5	12	19	26	2	9	16	23	30	6	13	20	27
Tu													
We													
Th										Service Geneva			
Fr													
Sa													
Su													

	Oct			Nov			Dec						
WK	41	42	43	44	45	46	47	48	49	50	51	52	1
Mo	4	11	18	25	1	8	15	22	29	6	13	20	Special day
Tu													
We												Special day	
Th												Christmas Eve	Last Day of the Year
Fr												Christmas Day	
Sa												Christmas Day	
Su												Boxing Day	

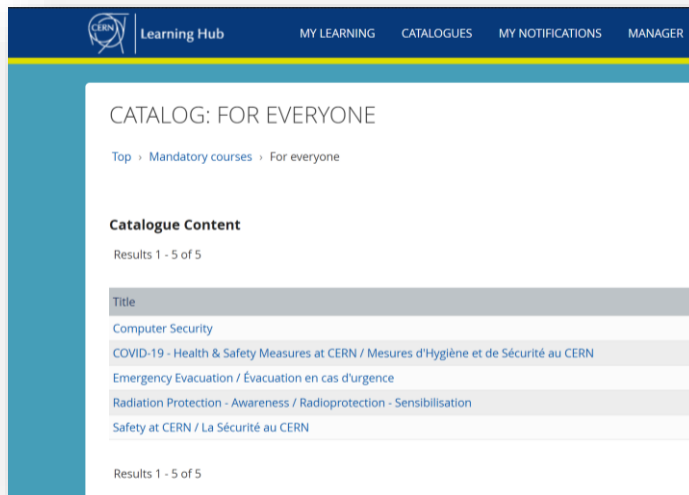
Official Holidays (5d 0h) Physics run (1d 0h)

- ISOLDE schedules now integrated into ASM
- Export to excel view, weekly, monthly and annual schedules etc....
- <https://asm.cern.ch/schedules/calendar?type=ISOLDE&schedule=ISOLDE%20HRS&version=1.0&state=Draft&view=year>

Access to CERN, trainings etc

Tele-working must be followed for all who currently can...till end of February at least...

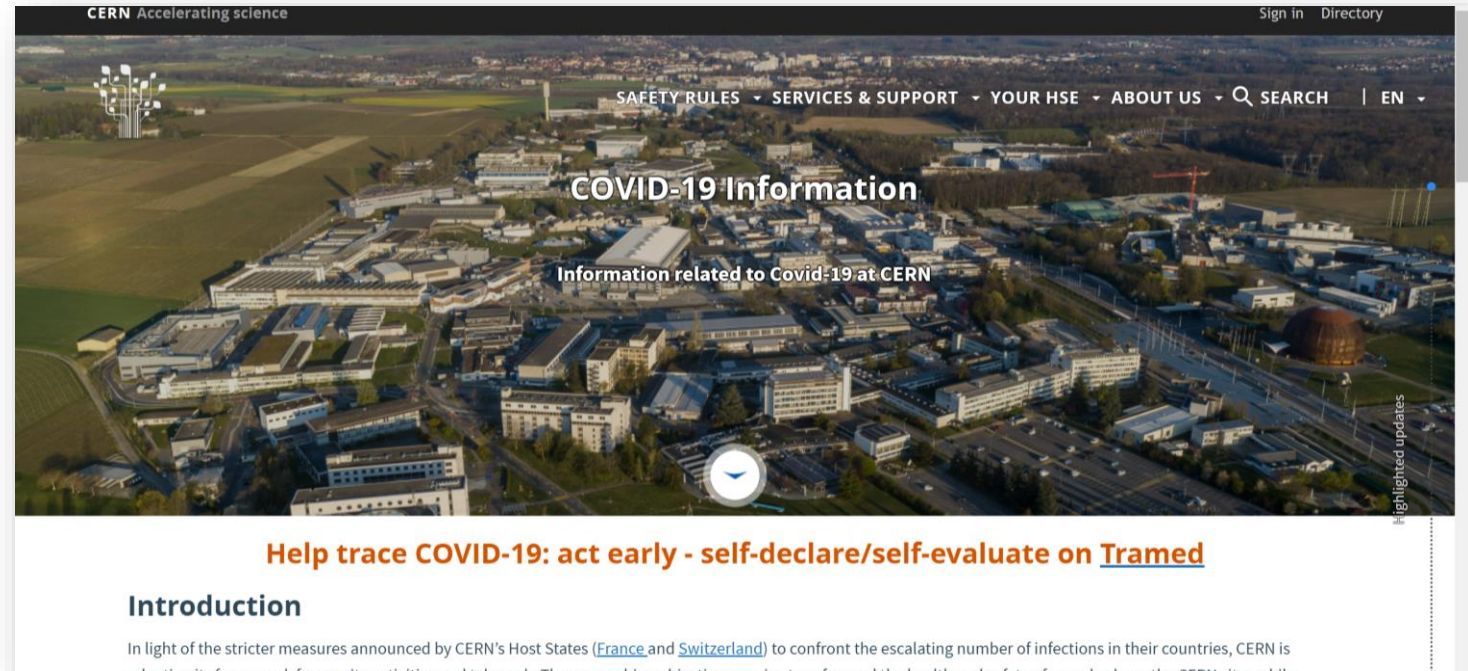
Users *can* still come to CERN, hostel is open. However, has to be for essential tasks. The following courses are now mandatory for access to the site:



The screenshot shows the CERN Learning Hub interface. The header includes the CERN logo, 'Learning Hub', and navigation links: 'MY LEARNING', 'CATALOGUES', 'MY NOTIFICATIONS', and 'MANAGER'. The main content area is titled 'CATALOG: FOR EVERYONE' and shows a breadcrumb trail: 'Top > Mandatory courses > For everyone'. Under 'Catalogue Content', it lists 'Results 1 - 5 of 5' and displays a table of course titles:

Title
Computer Security
COVID-19 - Health & Safety Measures at CERN / Mesures d'Hygiène et de Sécurité au CERN
Emergency Evacuation / Évacuation en cas d'urgence
Radiation Protection - Awareness / Radioprotection - Sensibilisation
Safety at CERN / La Sécurité au CERN

At the bottom, it again shows 'Results 1 - 5 of 5'.



The screenshot shows the CERN website's COVID-19 information page. The header features the CERN logo and 'Accelerating science', along with navigation links: 'SAFETY RULES', 'SERVICES & SUPPORT', 'YOUR HSE', 'ABOUT US', 'SEARCH', and 'EN'. The main heading is 'COVID-19 Information' with a sub-heading 'Information related to Covid-19 at CERN'. Below this, there is a prominent orange call-to-action: 'Help trace COVID-19: act early - self-declare/self-evaluate on Tramed'. The 'Introduction' section begins with: 'In light of the stricter measures announced by CERN's Host States ([France](#) and [Switzerland](#)) to confront the escalating number of infections in their countries, CERN is adapting its framework for site activities and travel... The overarching objective remains to ensure the health and safety of our people at the CERN site while...

Information on access etc changes constantly: details are on <https://hse.cern/covid-19-information>

- Aim to have remote separator course later in the year.
- Remote access/control for setups is recommended as we don't expect all collaborations to be able to travel easily in 2021. Other labs e.g. TRIUMF have been running with local groups and remote assistance from users.

Mandatory from March onwards for everybody on site....CERN proximeter

- Will record close contacts and keep records for 2 weeks then data deleted.
- Vibrates to warn its carriers when they move to within two metres of each other for more than 30 seconds
- About the size of a dosimeter...
- Will be mandatory until end of pandemic
- Can be collected at B. 55, dropped off after leaving



If measures continue...running experiments will not be straightforward.

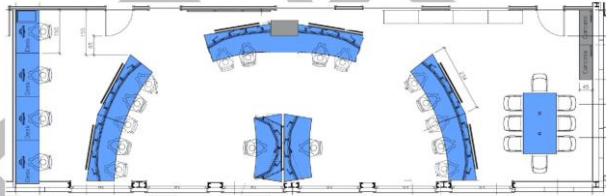


Figure 5: Layout and maximum occupancy of the ISOLDE control room in its pre-COVID configuration.

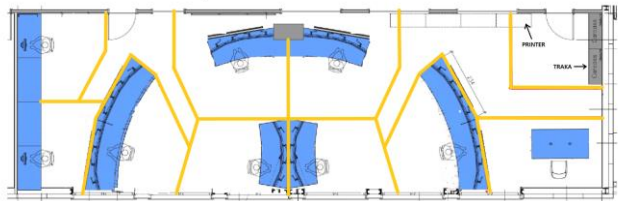
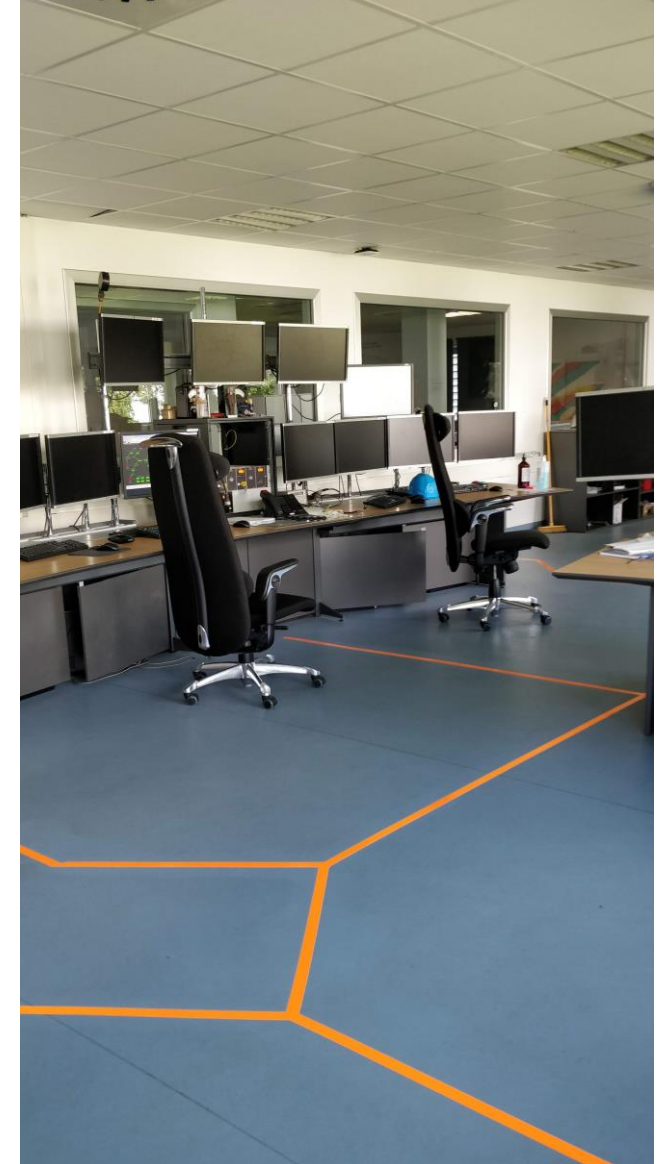


Figure 6: Layout and maximum occupancy of the ISOLDE control room in its Covid configuration. Working areas and entrance area for TRAKA box and printer marked in orange and red.

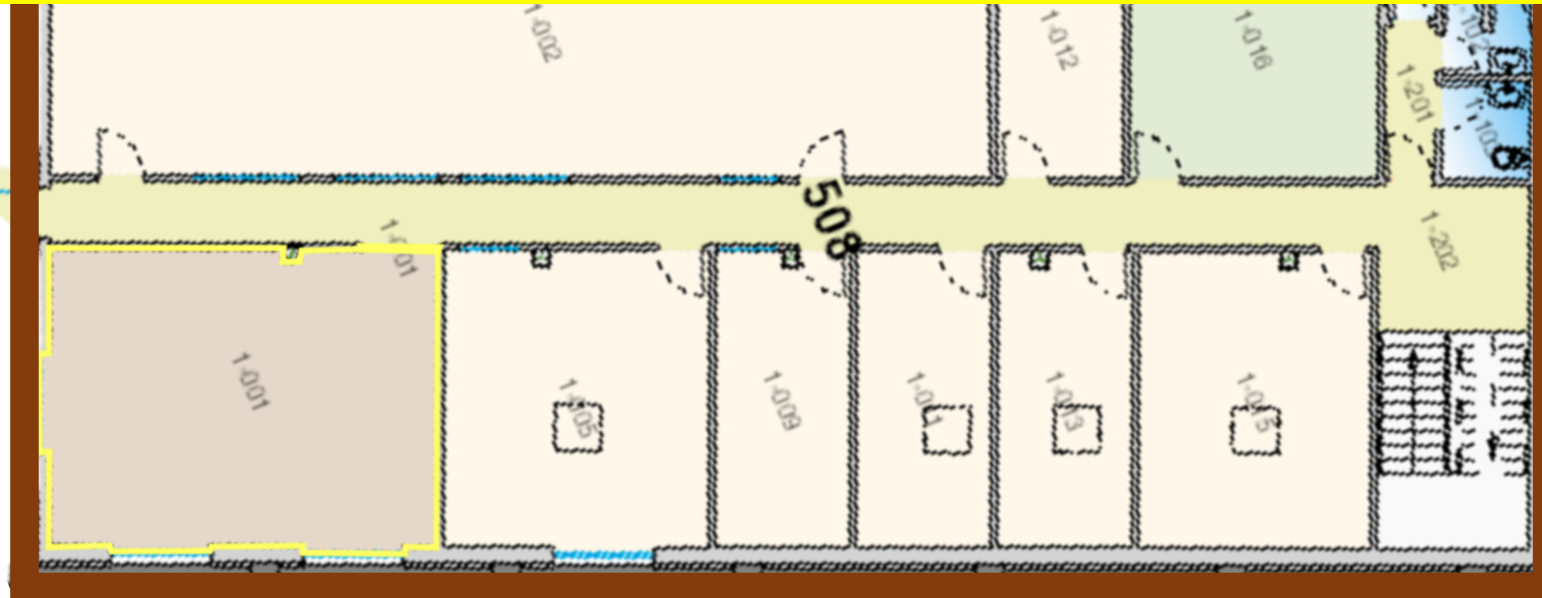


- 1-002 → Control room (291 m³)
- 170 m³/h
- 6 people

- 1-016 → Kitchen (77 m³)
- Vent?
- 4 people

Preparations are ongoing for adapting the occupancy of 508.

- 1-001 → Visitors room (130 m³)
- 310 m³/h
- 6 people



- 1-015 → RILIS DAQ (76 m³)
- 196 m³/h
- 4 people

- 1-005 → ISOLDE DAQ (87 m³)
- 232 m³/h
- 4 people

- 1-009 → ISOLTRAP DAQ (44 m³)
- 176 m³/h
- 2 people

- 1-011 → xx (44 m³)
- Vent?
- 4 people

- 1-013 → xx (42 m³)
- Vent?
- 2 people

Publications during LS2

~160 publications during LS2

29 PhD theses defended

9 in NPG Family: Nature; N Physics; N Comms; Sci Reports

>30% in Phys Rev (A – X) of which 8 letters

All which received funding from ENSAR2 are OA

Reminder about CERN's policy on open access: many new arrangements with publishers. CERN can also assist with costs if there are CERN authors present:

<https://scientific-info.cern/submit-and-publish/how-and-where-publish/arrangements-with-publishers>



Arrangements with publishers

CERN has agreements with several publishers. Those agreements are detailed below. If you want to know where to easily publish in open access by discipline, please have a look at the following pages: [Accelerators](#), [Instruments](#), [Physics](#), [Other disciplines](#), [Conference Proceedings](#).

Frontiers

All articles with at least one CERN-affiliated author are eligible for central CERN funding to cover the Δ PC under this agreement. Before submission, please send a message to open-access-questions@cern.ch to start the administrative procedure for the payment.

Please make sure also that 'European Organization for Nuclear Research (CERN)' is selected as institutional payer in the invoice section when submitting your article to Frontiers (this is particularly important if the [CERN Author](#) is not the submitting author). Frontiers will then verify the eligibility with CERN and, if confirmed, the APC (minus the discount) will be paid by CERN upon acceptance.

Most relevant titles:

- [Frontiers in big data](#)
- [Frontiers in physics](#)
- [Frontiers in artificial intelligence](#)
- [Frontiers in materials](#)
- [Frontiers in mechanical engineering](#)

Elsevier

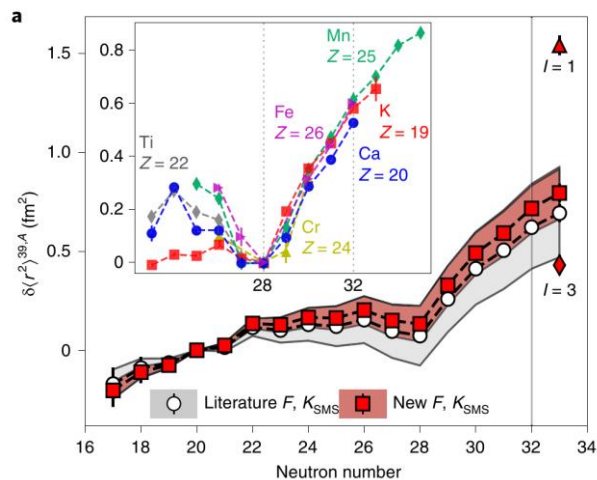
Still no ISOLDE agreement/policy on open data....



OPEN

Charge radii of exotic potassium isotopes challenge nuclear theory and the magic character of $N = 32$

Á. Koszorús^{1,17}✉, X. F. Yang^{1,2}✉, W. G. Jiang^{3,4,5}, S. J. Novario^{3,4}, S. W. Bai², J. Billowes⁶, C. L. Binnersley⁶, M. L. Bissell⁶, T. E. Cocolios¹, B. S. Cooper⁶, R. P. de Groote^{7,8}, A. Ekström⁵, K. T. Flanagan^{6,9}, C. Forssén¹⁰, S. Franchou¹⁰, R. F. Garcia Ruiz^{11,12}, F. P. Gustafsson¹, G. Hagen¹⁴, G. R. Jansen¹⁴, A. Kanellakopoulos¹, M. Kortelainen^{10,7,8}, W. Nazarewicz¹³, G. Neyens^{1,12}, T. Papenbrock^{13,4}, P.-G. Reinhard¹⁴, C. M. Ricketts¹⁰, B. K. Sahoo¹⁵, A. R. Vernon^{1,6} and S. G. Wilkins¹⁶



Laser Spectroscopy of Neutron-Rich $^{207,208}\text{Hg}$ Isotopes: Illuminating the Kink and Odd-Even Staggering in Charge Radii across the $N = 126$ Shell Closure

T. Day Goodacre^{1,2,3,*}, A. V. Afanasjev⁴, A. E. Barzakh⁵, B. A. Marsh², S. Sels^{2,6}, P. Ring⁷, H. Nakada⁸, A. N. Andreyev^{9,10}, P. Van Duppen⁶, N. A. Althubiti^{1,11}, B. Andel^{6,12}, D. Atanasov^{13,†}, J. Billowes¹, K. Blaum¹³, T. E. Cocolios^{1,6}, J. G. Cubiss⁹, G. J. Farooq-Smith^{1,6}, D. V. Fedorov⁵, V. N. Fedosseev², K. T. Flanagan^{1,14}, L. P. Gaffney^{6,15,‡}, L. Ghys^{6,16}, M. Huyse⁶, S. Kreim^{13,2}, D. Lunney^{17,§}, K. M. Lynch^{1,2}, V. Manea^{13,§}, Y. Martinez Palenzuela^{6,2}, P. L. Molkanov⁵, M. Rosenbusch^{18,||}, R. E. Rossel^{2,19}, S. Rothe², L. Schweikhard¹⁸, M. D. Seliverstov⁵, P. Spagnoletti¹⁵, C. Van Beveren⁶, M. Veinhard², E. Verstraelen⁶, A. Welker^{2,20}, K. Wendt¹⁹, F. Wienholtz^{2,18,¶}, R. N. Wolf^{13,18,**}, A. Zadornaya⁶ and K. Zuber²⁰

