

ISOLDE AND NEUTRON TIME OF FLIGHT
EXPERIMENTS COMMITTEE

Minutes of the 31st meeting of the INTC
Held on Monday 19 and Tuesday 20 May 2008

OPEN SESSION

Monday 19 May 2008 at 13:30 h, Main Auditorium

The Chairman of the INTC, Mark Huyse, opened the meeting and announced the agenda of the open session.

ISOLDE Technical Report

The AB-ISOLDE representative for the INTC, Mats Lindroos, summarized the technical activities during the shutdown period 2007/2008 and the startup of the 2008 campaign. It was pointed out that the planning of the shutdown work required a sequential order since for a large number of tasks a representative of the Radioprotection group has to be present and only one person has been allocated for ISOLDE. This made the shutdown planning very time consuming and rather complicated. It was also stressed that the startup period at CERN is as well a very complex task since a lot of machines and facilities at CERN are involved and due to interlinks of personnel and resources all scheduled items suffer from delays and problems that may occur.

A large part of the shutdown work concentrated on the target and separator area, especially to address the limitation of the proton beam current to 1 μ A on the GPS targets due to an increase of activated air being released through the stack of the ISOLDE hall. A jump of the activated air intensity was observed last year and after various simulations and a detailed study of the target zone a new scenario for the ventilation of the target area has been initiated: the air will flow from the target area towards a tunnel, which is far from the targets, before being extracted. This should give additional time for the activated air to decay. The new scenario will be tested with the first targets on the GPS front-end.

The Committee was also informed on other technical issues: a new water cooling system has been installed for the targets. This system is much easier accessible and allows a much faster and easier maintenance. Furthermore, a filter for the pressurized air drying unit broke again which caused aluminum-oxide to leak into the system thus blocking vacuum equipment. After the repair the pressurized air system was purged and an alternative solution with a different drying system is foreseen.

The REX-ISOLDE setup has seen various maintenance work in the shutdown period, including a complete renovation of the REX-TRAP electrodes. The whole system was setup for the first on-line run for a ⁹C beam. The startup and setup was hampered by several technical problems

which were solved until the start of the run. Further projects for REX-ISOLDE are planned in 2008, e.g. a test of the mass separation of isobars, a direct injection of bunches from the ISCOOL into the EBIS, emittance measurements and the injection of a beam from a MiniMono ion source into REX-TRAP.

The shutdown work also covered the off-line test of the new front-end FE6, including tests of the beam optics and planning of the installation at ISOLDE. Moreover, the new RILIS solid state pump lasers have been installed which will be used in parallel to the copper-vapour-lasers for the rest of the year. The new pump lasers run at wavelengths different from those of the copper vapour lasers and the beam parameters are different as well. Some ionization schemes have to be changed in order to apply the new laser system. A first test was performed for the ionization of Ga isotopes.

Finally, the Committee was informed on the status of the HIE-ISOLDE project. The Phase I with the RFQ cooler and buncher ISCOOL, the RILIS upgrade, and the energy upgrade of the REX-LINAC to 5.5 MeV/u received significant external funding, reaching in total 8 MCHF for material with about 5.5 MCHF still missing for completion. While the RFQ and the new RILIS system are fully funded and both projects are almost completed, the design study on the superconducting LINAC has just started.

ISOLDE Physics Report

The ISOLDE Physics Coordinator, Alexander Herlert, summarized the planning for 2008 and reviewed the startup and the first runs in 2008. He also informed the Committee on the present status of INTC experiments: After the on-line period in 2007, 63 experiments were active with in total 470 radioactive ion beam shifts left. After the February INTC meeting 5 experiments were closed by the users and 9 new experiments were approved by the Research Board, leading to 67 active experiments with about 700 RIB shifts to be considered for the 2008 schedule.

It was planned to have two weeks of cold check-out after the long shutdown period in order to start the ISOLDE machines, followed by a two week long off-line period for experiments and startup of REX ISOLDE and the ISCOOL buncher and cooler. In the off-line period the new RILIS laser system was successfully tested for laser ionization of Ga, and a new laser setup at the COLLAPS experiment was installed and tested for a future on-line run on neutron-rich Be isotopes. At the HRS the ISCOOL was successfully tested after the shutdown maintenance 2007/2008. The Committee was informed that it is planned to use the ISCOOL setup throughout the year and that for each HRS run an additional day for setting up the ISCOOL buncher will be added to the schedule.

From the CERN accelerator schedule 2008 it was foreseen to have protons at ISOLDE starting May 5 and to start the physics program on May 9. The shutdown work was finished on time and protons were delivered according to schedule. The running period will last until November 12, i.e. 27 weeks for the ISOLDE on-line measurement program. The Committee was informed that for testing and maintenance of other accelerator facilities at CERN, longer blocks of days without protons to ISOLDE have been planned, making the scheduling of ISOLDE experiments more difficult. In addition to these constraints, the limitation of actinide targets to about 10 new units and RILIS operation time to less than 2000 hours restricted the scheduling of some experiments. The beam requests with in total 550 shifts needed to be cut down and 23 experiments could be scheduled until the end of August. The second part of the 2008 experiment schedule will be published in June.

The first on-line run was devoted to a ^9C beam post accelerated with REX-ISOLDE. Due to a tremendous effort from the technical group initial problems with the low-energy part of REX-

ISOLDE were solved including the first injection of a molecular beam from ISCOOL into REX-TRAP. In addition, ISOLDE faced again the problem that the machine controls were not working well, hampering the setup and the operation of the targets and the separators. Although the yield for ^9C was not sufficient, the transfer of a CO beam through ISCOOL, the breakup in REX-EBIS, and the post-acceleration was successful and a ^{10}C beam was delivered to the users for tests of their setup. The first run on the GPS was dedicated to a target test for a MiniMono ECR ion source and a new Y_2O_3 target material, successfully measuring yields for ^{72}Kr and carbon isotopes.

The Committee was also informed that the new solid state laboratory is operational and that most of the equipment and experimental setups has been moved from building 275 to the new location in building 115. Only a few experiments will stay in building 275. Finally, an update was given on the new safety structure at ISOLDE, i.e. having a GLIMOS (Group Leader in Matters of Safety) for all experiments and installation supervisors for the permanent experiments at ISOLDE. Users are requested to contact these persons prior to arrival and setting up of their equipment. Users were also reminded that a new Radioprotection course has to be followed when a dosimeter needs to be replaced or a new dosimeter is requested.

n_TOF Physics Report

The n_TOF representative, Daniel Cano Ott, gave a status report on the physics program at the n_TOF facility. He summarized the results from the experimental phase 2001-2004 which aimed at neutron capture and fission cross sections for the transmutation of nuclear waste, neutron capture cross sections relevant to nuclear astrophysics, cosmochronometry, and stellar nucleosynthesis, and fundamental cross sections as well as photon strength functions and nuclear level densities. It was pointed out that the n_TOF facility is unique with respect to its high duty cycle and the possibility to study radioactive samples of a few mg only.

With n_TOF an energy range from 0.1 eV to 1 GeV can be addressed and with the present flight path of 185 m a good energy resolution is achieved. In addition, n_TOF has been the first neutron beam line world-wide proposing, building, and operating a fully digital DAQ, which allows to record the full history of every detector with nearly zero dead time. New low-mass neutron beam monitors and fission detectors have been constructed as well as a total absorption calorimeter (TAC) for (n, γ) measurements.

The results obtained in 2001-2004 include capture and fission cross sections relevant for nuclear waste transmutation, nuclear astrophysics, e.g. for the s-process, and fundamental nuclear physics. For the future it is planned to improve the detector systems and to add a second vertical beam line with a flight path of 20 m length, which will be 100 times more intense than the present one. The physics program at n_TOF will be continued in November 2008 when the new target unit is ready for operation.

The following proposals, addenda and status reports were then presented:

1. **CERN-INTC-2008-020 and INTC-P-243**, *Fast-timing studies of nuclei below ^{68}Ni populated in the beta-decay of Mn isotopes*, Luis Fraile
2. **CERN-INTC-2008-021 and INTC-P-244**, *Measurements of octupole collectivity in $^{220,222}\text{Rn}$ and $^{222,224}\text{Ra}$ using Coulomb excitation*, Marcus Scheck
3. **CERN-INTC-2008-023 and INTC-P-245**, *Conversion Electron Study to Identify the Spherical 0_2^+ State in ^{32}Mg via its $E0$ Decay*, Peter Thierolf
4. **CERN-INTC-2008-025 and INTC-P-246**, *Measurements of competing structures in neutron-deficient Pb isotopes by employing Coulomb excitation*, Janne Pakarinen
5. **CERN-INTC-2008-027 and INTC-P-247**, *Shape coexistence measurements in even-even neutron-deficient Polonium isotopes by Coulomb excitation using REX-ISOLDE and the Ge MINIBALL array*, Beyhan Bastin
6. **CERN-INTC-2008-028 and INTC-P-248**, *Studies of beta-delayed two-proton emission: The cases of ^{31}Ar and ^{35}Ca* , Hans Fynbo
7. **CERN-INTC-2008-017 and INTC-SR-009**, *Report to the INTC on experiment IS406: Precision study of the beta decay of ^{62}Ga* , Joakim Cederkall
8. **CERN-INTC-2008-019 and INTC-SR-010**, *Charge radii of magnesium isotopes and transition to a deformed configuration towards $N=20$* , Deyan Yordanov
9. **CERN-INTC-2008-024 and INTC-P-201-ADD-1**, *Ultra Fast Timing Measurements at ^{78}Ni and ^{132}Sn* , Henryk Mach
10. **CERN-INTC-2008-022 and INTC-P-222-ADD-1**, *Study of polonium isotopes ground state properties by simultaneous atomic- and nuclear-spectroscopy*, Thomas Cocolios

CLOSED SESSION

Tuesday 20 May 2008

Present: J. Billowes, Y. Blumenfeld, Ph. Chomaz, M. Doser, P.-H. Heenen, A. Herlert (Secretary), M. Huyse (Chairman), R. Julin, H. Leeb, M. Lindroos, K. Riisager, Ch. Scheidenberger, V. Vlachoudis, U. Wahl

Apologies: J. Engelen, M. Fanciulli

1. INTRODUCTORY REMARKS

The Chairman opened the meeting and informed the Committee that the CERN Research Board had approved the experiments from the last meeting. He also informed the Committee that in the Research Board a question was raised on the policy related to open access publications within the ISOLDE community and if ISOLDE publications are in line with CERN rules. It was pointed out that CERN requires that if a member of CERN personnel is on a scientific publication, the manuscript has to be submitted to the preprint service of CERN. In addition, internal refereeing from the PH department, especially worked out for the n-TOF and ISOLDE facilities, will ensure a high standard for publications presenting results obtained at CERN. Open access solutions offered by standard publishers like, e.g., APS, Elsevier, or Springer, are rather expensive with more than \$1000 for each article. The Committee took note on the possibility to use the arXiv preprint server as well as the CDS preprint service from CERN and recommends the ISOLDE and n-TOF collaborations to establish a system where submission of preprints and updating of the accepted papers are guaranteed.

The Committee was also informed on the last CERN Science Policy Committee (SPC) meeting and that ISOLDE is included in the midterm plan up to 2013 as an approved experiment. The SPC discussed the possibility to have more CERN support for non-LHC experiments. A working group has been installed to prepare a full discussion on the MTP in the June meeting. An important input for the discussion on non-LHC physics is the relation between CERN funding and external contributions. The Committee asked the n-TOF and ISOLDE collaborations to provide the chairman of the INTC within the coming weeks with a global overview of the respective collaboration efforts in investment and running costs. A similar question is addressed to the AB department to report on investment and running costs related to the operation of ISOLDE and n-TOF.

2. MINUTES OF THE LAST INTC MEETING

The minutes of the 30th INTC meeting held on 11 and 12 February 2008 were approved without amendments.

3. STATUS OF ISOLDE

The Committee regarded the limitation of the proton beam intensity to 1 μ A at the GPS front-end as a major concern. If the recent change of the ventilation system does not reduce the amount of activated air, a limitation to 1 μ A can significantly affect the physics program.

Concerning the report on the status of HIE-ISOLDE, the Committee encouraged the ISOLDE Community to move forward to CERN management and to have HIE-ISOLDE approved as a CERN project.

The Committee was also informed on the backlog of shifts and that the ratio between requested and scheduled shifts is still in a healthy status. It was pointed out that there is no need to cut or to reduce the number of shifts and that the Committee will judge submitted proposals solely on

the physics case and feasibility. The ISOLDE Physics Coordinator will report in the next meeting on the backlog of the number of shifts and its evolution in the last years.

4. STATUS OF N_TOF

The Committee took note on the impressive achievements of the physics program, realised in the first n_TOF campaign. The next campaign is planned to start in November 2008 provided the new target is ready. The Committee suggested to have a report at the next INTC meeting. It was pointed out that all three approved n_TOF experiments will take place at the old flight path and that new proposals are in preparation for the upcoming INTC meetings. The new vertical flight path is under discussion and requires additional funding.

5. DISCUSSION ON THE OPEN SESSION AND ON LETTERS OF INTENT

The presentations of the proposals and status reports made during the open session were then discussed. It was reiterated again that the Committee discourages many addenda to running experiments in order to minimize the time span between the original proposal and the new beam time requests.

CERN-INTC-2008-020/P-243, *Fast-timing studies of nuclei below ^{68}Ni populated in the beta-decay of Mn isotopes*

The proposal aims at the investigation of the N=40 neutron sub-shell closure around ^{68}Ni by studying de-excitation of states in Fe isotopes populated in the beta decay of neutron-rich Mn isotopes. It is planned to use the Advanced Time-Delayed $\beta\gamma\gamma$ technique to measure dynamic moments and to deduce information on the nuclear structure in this mass region. The Committee stressed the importance of the physics case, considering the N=40 shell seems not to be very robust. The experimental technique is well under control and the neutron-rich Mn beams at ISOLDE have the required intensities. Nevertheless, the Committee showed concern on the possible contamination of the Mn beams with Ga isobars. In addition, the Committee pointed out that there is already an approved experiment aiming at the investigation of the beta decay of neutron-rich Mn isotopes and which is therefore complementary to the experiment proposed here. The Committee decided to **recommend** for approval by the Research Board **24 shifts** and suggests to schedule first the already approved experiment on the beta decay of Mn isotopes in order to obtain more information on the decay schemes relevant for the present proposal.

CERN-INTC-2008-021/P-244, *Measurements of octupole collectivity in $^{220,222}\text{Rn}$ and $^{222,224}\text{Ra}$ using Coulomb excitation*

The experiment proposes to study the octupole collectivity of heavy Rn and Ra isotopes. It is planned to obtain information on octupole correlations by use of Coulomb excitation of the first 3^- states in $^{220,222}\text{Rn}$ and $^{222,224}\text{Ra}$ at the MINIBALL setup. The Committee underlined the importance of the physics case and pointed out that octupole collectivity has not been studied much and that more information is needed from that mass region. In addition, the possibility to deduce information with respect to non-zero EDM was regarded as very exciting. The experiment is regarded as well suited and ISOLDE has the unique capability to provide the required Rn and Ra beams. The Committee decided to **recommend** for approval by the Research Board **22 shifts** and asks the Physics Coordinator and the target group to address the possible risk of contamination of experimental equipment at REX-ISOLDE due to long-lived daughter nuclides.

CERN-INTC-2008-023/P-245, *Conversion Electron Study to Identify the Spherical 0_2^+ State in ^{32}Mg via its $E0$ Decay*

The proposal is directed towards the identification of the 0_2^+ state in ^{32}Mg . It is planned to use a Mini-Orange detector setup, which has already been successfully applied to observe the 0_2^+ state in ^{30}Mg . The Committee pointed out that data on the first excited 0^+ state will give important information and that its energy needs to be measured. However, the energy range, where the 0_2^+ state may be located, is not known. The assumptions made in the proposal might be too optimistic and the feeding from ^{32}Na , considering its possible spin and parity, might be too weak. So there is a risk that no transition can be identified due to the unavoidable background. The Committee suggested to first wait for the full analysis of the ^{32}Na decay, work from the same collaboration, and the outcome of an approved experiment on two neutron transfer on ^{30}Mg . Both may give valuable input for the present proposal. Upon these results, the Committee strongly encourages to submit another proposal.

CERN-INTC-2008-025/P-246, *Measurements of competing structures in neutron-deficient Pb isotopes by employing Coulomb excitation*

The aim of the proposed experiment is to investigate competing structures in neutron deficient Pb isotopes using Coulomb excitation at the MINIBALL experiment. This proposal is related to the letter of intent I074, which was endorsed in the last INTC meeting. The Committee pointed out that it is not clear if the expected accuracy of the data will be sufficient to disentangle different models. The analysis seems to be difficult and it is expected that the matrix elements are rather small. A more quantitative assessment may be possible when the results from similar experiments on Hg are ready. The Committee decided to first wait for the outcome of the required purity test of the Pb beam (as requested in the letter of intent). The Committee asked that a resubmitted proposal should further clarify the analysis procedure and to address the accuracy of the obtained matrix elements as well as the relation to the lifetime measurements. It was also requested to extend the proposal with simulations and to add more theoretical models for comparison.

CERN-INTC-2008-027/P-247, *Shape coexistence measurements in even-even neutron-deficient Polonium isotopes by Coulomb excitation using REX-ISOLDE and the Ge MINIBALL array*

The proposal intends to study the transition from vibrational-like character to shape coexistence in Po isotopes by use of Coulomb excitation. The Committee found the physics case clearly motivated and the envisaged experimental approach well established and under control. However, the purity of the Po beam with respect to Tl contamination was questioned, especially the planned technique of gating on the different release times of Po and Tl. The Committee **endorsed** the physics case of the proposal but did not recommend it yet for approval by the Research Board until yields for the Po and Tl isotopes as well as their release has been tested. The proposers are requested to send a status report once these results are available.

CERN-INTC-2008-028/P-248, *Studies of beta-delayed two-proton emission: The cases of ^{31}Ar and ^{35}Ca*

The aim of the proposed experiment is to investigate beta-delayed two-proton emission for ^{31}Ar and ^{35}Ca . The decay of ^{31}Ar has been studied before at ISOLDE and the proposal wants to employ a better experimental setup which will be more sensitive for two-proton detection and should also allow to deduce information on resonances relevant for the astrophysical rp process. The Committee confirmed the importance of data obtained for nuclides along the proton

dripline. There was some concern that the feasibility of one of the aspects of the proposed experiment is unclear as the probability to observe two-proton emission might be small. In addition, it was not clear to the Committee how the mixing of sequential and direct two-proton decay can be distinguished. Nevertheless, information on (p,γ) cross sections can be obtained in the proposed experiment as well. The Committee thus **recommended** for approval by the Research Board **27 shifts** for the investigation of ^{31}Ar . The request for target development on ^{35}Ca is on hold until further proposals for neutron-deficient isotopes are brought forward to the Committee.

CERN-INTC-2008-017/SR-009, *Report to the INTC on experiment IS406: Precision study of the beta decay of ^{62}Ga*

The status report summarized the results from two measurement campaigns in 2002 and 2004 which were devoted to the determination of the branching ratio of the superallowed beta emitter ^{62}Ga using the Total Absorption Spectrometer at ISOLDE. The data analysis with respect to the branching ratio is still ongoing. The Committee showed concern on the disintegration of the collaboration of this experiment, which delayed the analysis and publication of results. As a byproduct of the experiment the half-life was also measured. Meanwhile other experiments are capable to measure half-lives much better and the situation for the branching ratio is unclear. Due to these circumstances the Committee decided to **close** the experiment and not to keep the remaining shifts for scheduling. Nevertheless, the Committee encouraged the publication of the results obtained so far. If the used method with the Total Absorption Spectrometer shows its potential with the ^{62}Ga branching ratio determination, other cases could be the subject of a new proposal.

CERN-INTC-2008-019/SR-010, *Charge radii of magnesium isotopes and transition to a deformed configuration towards $N=20$*

In this status report the proposers ask for additional shifts to complete their experimental program on magnesium isotopes and to obtain the charge radii from isotope shift measurements at COLLAPS. It is planned to combine traditional fluorescence detection with the more sensitive beta-decay detection method. The Committee regarded the spin determinations of $^{31,33}\text{Mg}$ as a significant result and the experimental program as being in good shape. It is well defined and will provide a lot of information for the island of inversion. Concerning the splitting of the program and the requested shifts into neutron-rich and neutron-deficient nuclides, the Committee found the physics case for the neutron-rich isotopes as most important. The Committee **recommended** for approval by the Research Board **12 shifts** to further explore the neutron-rich Mg isotopes towards $N=20$. In the case of neutron-deficient Mg isotopes, the results of the extended target tests (6 shifts) were successful and even resulted in the measuring of the hyperfine splitting of ^{21}Mg . In the present Status Report 8 shifts are asked for the neutron-deficient Mg but no actualisation of the scientific case was given (the original proposal dates from 2003) and no account on how these shifts would be divided over the different isotopes was given. The Committee encouraged the proposers to submit a new proposal with a more defined physics motivation.

CERN-INTC-2008-024/P-201-ADD-1, *Ultra Fast Timing Measurements at ^{78}Ni and ^{132}Sn*

The addendum of the proposal P201 aims at the determination of level lifetimes of neutron-rich Ga isotopes in the vicinity of ^{78}Ni by use of the Advanced Time-Delayed method. It is expected to get a clean Zn beam from ISOLDE if a uranium carbide target with a quartz transfer line will be used. The Committee regarded only the measurements for ^{80}Zn and ^{81}Zn as sufficiently

motivated, although not much is known about these neutron-rich Ga isotopes. The experiment and its detector setup work well and it will be interesting to compare the new data with shell model predictions and existing data which are quite old. The Committee **recommended** for the approval by the Research Board **11 shifts** for the investigation of ^{80}Zn and ^{81}Zn including the required calibration measurements. The Committee requested for ^{82}Zn as well as for the other cases a new proposal, if this research program will be continued. During the presentation of the addendum many results of the previous runs were presented. The Committee encourages strongly the full publication of these results in regular journals.

CERN-INTC-2008-022/P-222-ADD-1, *Study of polonium isotopes ground state properties by simultaneous atomic- and nuclear-spectroscopy*

In the addendum of proposal P222 the continuation of the in-source laser spectroscopy on Po isotopes is requested. In addition to even-mass nuclei, some odd-mass isotopes could be studied in the past successful run as well. With the present data a deviation from the spherical droplet model could be observed. The Committee fully supported a continuation of the measurement program and the extension to more neutron-rich isotopes in order to explore the nuclear structure beyond the $N=126$ shell. The Committee **recommended** for the approval by the Research Board **24 shifts** and encouraged the development of a target with a faster release of ^{192}Po .

CERN-INTC-2008-018/I-076, *Study of oblate nuclear shapes and shape coexistence in neutron-deficient rare earth isotopes*

The letter of intent requests the development of rare earth beams for the study of oblate nuclear shapes and shape coexistence in neutron-deficient rare earth isotopes. It is planned to employ the MINIBALL experiment to perform Coulomb excitation. Besides the beam intensities, the beam purity is of importance. The Committee could not make on the basis of this letter of intent a full assessment of the physics case. However, the development of rare earth beams has high priority and is ongoing and the Committee regarded this letter of intent as a further support for this beam development. The Committee asked the target group to prepare for the next meeting a report on the present status of the target development for radioactive beams in the rare earth region.

CERN-INTC-2008-026/I-077, *Nuclear electron capture in few-electron systems*

The presented letter of intent aims at an independent study of a finding observed in the ESR storage ring at GSI Darmstadt, where an exponential decay with a superposed oscillation was observed in the case of hydrogenlike ^{140}Pr and ^{142}Pm . There is no consensus on the origin of this oscillation (neutrino oscillation, hyperfine structure effect, or experimental artefact) and further experiments are needed to resolve this question. The Committee found the physics case of highest interest and also supported the idea to use an ion trap for the decay studies, since it will give complementary data from an experimental environment significantly different as compared with a storage ring. The Committee also pointed out that such kind of an experiment is rather difficult and that the preparation of a uniquely defined state is questionable. Nevertheless, the technical development of low-mass charge-bred beams with respect to zero and one-electron systems was supported by the Committee.

CERN-INTC-2008-029/I-078, *Fast-timing studies from the beta-decay of n-rich Cl isotopes*

The letter of intent requests the development of neutron-rich Cl beams in order to investigate Ar nuclei and to test shell model predictions below $N=28$. The Committee regarded the physics

case as well motivated but too unspecific with respect to its feasibility. The Committee did not see a high priority for the CI beam development on this letter of intent only and strongly suggested to look for other possible users for a CI beam at ISOLDE.

Out of the **204** radioactive beam shifts requested to the INTC a total of **120** have been recommended for approval by the Research Board.

6. A.O.B.

At the next meeting a new, recurrent item will be added to the agenda in order to examine the status of the current ISOLDE experiments. The aim is to spot inactive experiments (no beam in the last three years) and to discuss experiments with only some left-over shifts. A Status Report on the MISTRAL project is required for the next INTC. In addition, the usage and reallocation of floor space will be reviewed.

7. CONCLUDING REMARKS

The Chairman thanked Karsten Riisager as ISOLDE Physics Group Leader and Yorick Blumenfeld as referee to the INTC for their effort in the last meetings. Karsten Riisager will be replaced as ISOLDE Physics Group leader by Yorick Blumenfeld this summer.

8. DATES OF NEXT MEETING

The next INTC meeting will take place on **Monday 3 and Tuesday 4 November 2008**. The deadline for submission of proposals is **Monday 6 October 2008**.

Alexander Herlert
Tel. 73809 – 165295
alexander.herlert@cern.ch