|            |  |                        |            |            |       |         | Joint ICTP-IAEA School and Worksh  | ops 2018-2019  |  |
|------------|--|------------------------|------------|------------|-------|---------|--|--|--|
|            |  |                        |            |            |       |         | (due to COVID there were no Worksho  | ps in 2020)  |  |
| EVT1701973 | Scientific<br>and<br>Technical<br>Events | Training<br>Activities | 16-04-2018 | 20-04-2018 | Italy | Trieste | Joint ICTP-IAEA School and Workshop on Fundamental<br>Methods for Atomic, Molecular and Materials Properties<br>in Plasma Environments | Hill, Christian<br>(TRAC18002477)                          | Christian represented the IAEA at this<br>Bas Braams and Hyun-Kyung Chun<br>attendees and directors, he gave an i<br>molecular data sets: HITRAN, Exol<br>Atomic and Molecular Data to plan fu<br>2019 (proposal submitted) and 2020.<br>Some 60 students (Graduate students:<br>developing Member State countries a<br>contributed oral presentations. The ev<br>opportunities for knowledge-exchang<br>institutes.<br>He also took the opportunity to promo<br>damage modelling in materials for fu<br>backgrounds in relevant areas.<br>The presentations and abstracts are av<br>amdis.iaea.org/Workshops/ICTP2018<br>In conclusion: This Workshop was wite<br>successful, if diverse in scope, and it<br>held in 2019 as a School, focussed mon<br>Spectroscopy for plasma processes<br>The large Budinich Lecture Hall, in th<br>plea sant venue for the number of partic  |
| EVT1703650 | Scientific<br>and<br>Technical<br>Events | Training<br>Activities | 15-10-2018 | 26-10-2018 | Italy | Trieste | Joint ICTP-IAEA Workshop on Nuclear Structure and<br>Decay Data: Theory, Experiment and Evaluation                                     | Dimitriou, Paraskevi<br>(TRAC18020317)<br>(15-26 Oct 2018) | <ul> <li>Vivian:</li> <li>Vivian's work was to be involved set National Laboratory) and lecturers, mevaluating and selecting the particips ecretary, keeping abreast of all the organ taking care of all foreseen and undelecture halls, and last minute adjust demands.</li> <li>Due to the limited funds allocated in Vivian made special arrangements we Director (NAPC) to provide additionat costs of lecturers and participants for the successful organization of the worksht. Ten lecturers from 7 countries were participants form 13 countries were cancellations, we ended having 18 participants came from developed count the scientific program was formed. McCutchan.</li> <li>In addition to overseeing the smooth presentations: one on the nuclear date content and objective of the worksht of the trainees in the exercises.</li> <li>Conclusions: The workshop was we throughout the two weeks and product</li> </ul> |

his event, which was organised by my predecessors, ing. In addition to being a point of contact for the n invited presentation "Managing large atomic and oMol and CascadesDB", and met with experts in future Work shops and Schools at the ICTP for ).

ts, postdocs, and early-career scientists), many from s attended the Workshop, and presented posters or event was judged as successful and presented many nge and networking between scientists at different

note the IAEA's crowdsourcing challenge on radiation fusion reactors directly to participants with research

a vailable at the AMD Unit's website at <u>https://www-8/</u>.

videly held by the attendees and organisers to be very t was considered appropriate that a similar event be ore on training and teaching and in the area of Atomic

the ICTP's Leonardo da Vinci building, was a articipants.

selecting co-director (E.A. McCutchan, Brookhaven making all the arrangements with the lecturers, and icipants. She worked very closely with the ICTP organizational matters and management of the budget, unforeseen issues such as financial claims, changes of ustments of the program to meet the participants

initially to this two-week workshop (20000 Euro), with the approval of my Section (NDS) Head and onal funding of the order of 10000 Euros to cover the or two-weeks. This additional aid was vital for the shop.

re invited to lecture during the two weeks, and 20 re selected to participate. Due to two last minute participants from 11 countries. Out of these 18, 4 ountries and were self-funded.

ed in cooperation with the co-director Elisabeth

oth running of the workshop, Vivian also gave two data activities of the Nuclear Data Section and the shop, and a second one on the evaluation of nuclear acting with the trainees and the lecturers, and actively epractical courses, answering questions and assisting

very successful. Participants worked diligently used some impressive results:

|  |  |  |  | Marco Verpelli<br>(TRAC18012252)<br>(14-19 Oct) | <ul> <li>2) During the first week assistance or<br/>laptops, and ICTP computers, was prov</li> <li>Conclusions: The purpose of the trav<br/>and query tools are part of the necessar<br/>participants welcomed the presentation<br/>for exercise.</li> <li>The workshop gave me also the opport<br/>obtaining further suggestions like built</li> </ul> |
|--|--|--|--|---|---|
|  |  |  |  |   | where participants gained practice using<br>2) During the first week assistance on<br>laptops, and ICTP computers, was prov<br><b>Conclusions:</b> The purpose of the trave<br>and query tools are part of the necessar<br>participants welcomed the presentation   |
|  |  |  |  |   | Marco interacted with:<br>Tibor Kibedi - Australian National Univ<br>citizen.<br>Filip Kondev- Argonne National Labor<br>Pieter Van Isaker - GANIL, Caen, Fran<br>Murray Martin - Oak Ridge National La<br>Patrick Regan - University of Surrey - U<br>Claudio Tuniz - ICTP, Trieste, Italy - It<br>The participants of the workshop.                   |

ourses, the trainees in collaboration with their mplete the compilation of ten articles into XUNDL ed with the help of the supervisors and have a leady base.

the trainees were able to make significant progress nging to the mass chain A=218. The evaluation of age and will soon be submitted for publication in baded into the ENSDF database.

uted significantly to two major nuclear structure and DF) and all participants will have a publication in a

shop based on the results of the Questionnaire to the

he high level of the lectures and how beneficial they c.

he educational benefits of the workshop: they and learned how to be critical of published work. unity they had to interact and exchange knowledge om all over the world

d interest in continuing the evaluation work. As this lese workshops, NDS is in discussions with other how to form mentorships that would allow these training and work in nuclear structure and decay data

I that they had learned more at this workshop than at 'heir suggestions for improvements, as expressed in the consideration for future workshops.

ed and discussed with Claudio Tuniz, ICTP Local cturers: Elisa beth McCutchan (Brookhaven National rence Berkeley National Laboratory), Filip Kondev SA; Balraj Singh (McMaster University), Muray ratory), USA; Tibor Kibedi (Australian National ker (GANIL), France; Paddy Regan (Surrey Univ.), aly; Marco Verpelli (IAEA); Viktor Zerkin (IAEA).

Fools for querying Nuclear Structure and Decay on web tools, applications for mobile devices, and nputers. The lecture included an exercise section sing these tools.

on installing the required software on participants rovided.

avel was successfully fulfilled. Data dissemination sary instruments for nuclear data evaluation, and the ion with useful suggestions, like having more time

prunity to discuss with the other lecturers, building a query tool for XUNDL (Experimental

niversity, Canberra, Australia - Australian

poratory - USA citizen. ance - Belgian citizen. 1 Laboratory - USA citizen. - UK citizen. - Italian citizen.

|            | 1  | 1                      |          |           | -     |         |   |   |   |
|------------|--|------------------------|----------|-----------|-------|---------|---|---|---|
|            |  |                        |          |           |       |         |   | <b>Viktor Zerkin</b><br>(TRAC18020376)<br>(21-24 Oct) | <ul> <li>Viktor:</li> <li>delivered two lectures and practical exe</li> <li>MyENSDF Web Tools (60 m)</li> <li>IAEA-NDS Nuclear Reaction</li> <li>advanced features and online<br/>and MyEnsdf Web system (60)</li> <li>He participated in other practical exe<br/>MyEnsdf tools and Ensdf programs w<br/>development of Web based Ensdf exe<br/>providing practical help in usage of EX<br/>on practical session was attracted by a<br/>old data, inverse reaction calculations,</li> <li>Conclusions: Viktor's contribution to<br/>him because he received feedbacks fr<br/>exercises and discussions.</li> <li>Viktor interacted with: Singh Balraj<br/>(Lawrence Berkeley National Laborate<br/>Laboratory), Kasperovych Dmytro (K<br/>Anastasiia (Kharkov Institute of Phy<br/>(TRIUMF, Canada)</li> </ul>  |
| EVT1804932 | Scientific<br>and<br>Technical<br>Events | Training<br>Activities | 6-5-2019 | 10-5-2019 | Italy | Trieste | Joint ICTP-IAEA School on Atomic and Molecular<br>Spectroscopy in Plasmas | Christian<br>(TRAC19001976)                           | <ul> <li>Christian:</li> <li>Participation as Course Director and L<br/>and Molecular Spectroscopy in Plasma</li> <li>This School was attended by 44 partic<br/>of the participants from developing<br/>accommodation from the event budget<br/>career scientist (graduate students and</li> <li>The purpose of the School is to provi<br/>physicists, plasma spectroscopists, and<br/>and plasma applications to expand<br/>associated atomic and molecular scie<br/>amongst and between the students and</li> <li>Christian worked with the other direc<br/>the event, manage and introduce lect<br/>feedback through an anonymous or<br/>information to the participants.</li> <li>He gave three lectures on molecular s<br/>session.</li> <li>Conclusions: Based on the feedback re<br/>to the lecturers, this School was very s<br/>of 8.52 / 10 with 22 out of 27 rating i<br/>vast majority of the students attended<br/>on all lecture courses asked about wa<br/>Just right".</li> <li>The Leonardo Lecture Theatre that y<br/>available as it is currently undergoing re<br/>functioned well, but came in for some<br/>lucky that another lecture room was<br/>require more space.</li> <li>The students returned to their home<br/>spectroscopy and its applications, and p<br/>School in future.</li> </ul> |

exercise: min) on Databases and Services (45 min) ne work with EXFOR-ENDF-IBANDL-ZVView, (60 min)

xercises and informal discussions about usage of s via Internet, features, current options and further editor and viewers, also answering questions and EXFOR Web retrieval system. The greatest interest advanced operations with data: renormalization of s, work with own data on our Web systems.

o the school was useful for participants and also for from the participants and lecturers during practical

aj (McMaster University, Canada), Shamsu Basunia atory), Eliza beth McCutchan (Brookhaven National (Kiev Institute for Nuclear Research), Chekhovska Physics and Technology), Caballero Folch Roger

Lecturer in the joint ICTP-IAEA School on Atomic mas, 6 - 10 May 2019.

ticipants from 20 IAEA Member States, with many g countries received funding for their travel and get. The majority of those attending were early-stage ind post-docs).

vide training and information exchange for plasma and other users of atomic and molecular data for fusion ad their knowledge of plasma spectroscopy and ciences. It also provides a forum for networking ad lecturers.

ectors, including the local organizers, to coordinate octure sessions, maintain the event website, obtain online questionnaire, and provide administrative

spectroscopy and chaired the question-and-answer

received from participants in the School and talking successful. Participants rated the school an average g it "Good" or "Fantastic" in our questionnaire. The d over 80% of the lectures and the majority verdict vas in the categories "Very useful" and "Difficulty:

we would have preferred for this event was not refurbishment; the Euler Room that we used instead the criticism for being too small and airless. We were s free for the computing practical sessions which

ne institutes with a better knowledge of plasma d provided feedback that they would recommend the

|  | <br> | <br>- 1 | I                       | 1   |
|--|------|---------|-------------------------|---|
|  |      |         | Kalle<br>(TRAC19001977) |   |
|  |      |         |                         | <b>Conclusions:</b> All the planned of communication) for the school were as such a school organized jointly by I location and venue allow concise com lectures for the whole week with a broad |
|  |      |         |                         | Kalle had numerous discussions with th<br>on tokamak physics and spectroscopy).<br>school lecturers on separate IAEA nuc<br>(Forschungszentrum Julich), Mr Chris<br>(NFRI).                     |

## e for Theoretical Physics

tist in High Energy, Cosmology and Astroparticle egic Planning and Education; Local Organizer of the enior Research Scientist, Condensed Matter and

tre for Fusion Research, Republic of Korea Yuri andards and Technology, USA

trum Jülich, Germany tute for Astrophysics, Germany rsité, France Laboratory, USA

gy and Alternative Energies Commission, Centre

epartment, Bahir Dar University, Ethiopia

"Joint ICTP-IAEA School on Atomic and Molecular

tific and administrative duties during the preparation ed the school onsite as a lecturer and took part in the nout the duration of the school. t http://indico.ictp.it/event/8660/.

with the school participants, which comprised mostly f his lectures. Also, he had meetings with the other A projects on nuclear fusion research with respect to terial Interactions.

duties (organizational, information sharing, accomplished. During the week the importance of ICTP-IAEA became apparent. The ICTP school ommunication in the forms of poster sessions and road range of participants.

n the attendees (PhD students, early stage researchers y). He had also meetings or discussions with theother nuclear fusion projects: Mr Sebastijan BREZINSEK ristian HILL (IAEA), and Ms Hyun-Kyung Chung