Meeting Program

Tuesday, Sept 4

11.00	collaboration meetings
12.30 - 14.00	**Lunch**
14.00 - 15.30	**Pre-workshop technical session** session chair: Shui-Ming Hu
14.00 - 14.30	Guo-Min Yang, USTC *Towards ^{39}Ar-dating at USTC*
14.30 - 15.00	Philip Light, University of Adelaide *Exploration of all-optical noble-gas metastable excitation techniques*
15.00 - 15.30	Florian Ritterbusch, USTC *Optical production of metastable krypton*
15.30 - 16.00	**Break**
16.00 - 17.30	**Pre-workshop technical session, continued** session chair: Reika Yokochi
16.00 - 16.15	Weikang Hu, USTC *Optical pumping for enhancing* *the metastable krypton production in ATTA*
16.15 - 16.45	Christoph Gerber, CSIRO Land & Water *Current capabilities and ongoing developments* *at the Environmental Tracer Laboratory in Adelaide, Australia*
16.45 - 17.00	Xi-Ze Dong, USTC *An automated system for dual separation* *of argon and krypton from environmental samples*
17.00 - 17.15	Yan-Qing Chu, USTC *An automated system for continuos separation* *of krypton from atmospheric air*
17.15 - 17.30	Tomoko Ohta, CRIEPI *Separation of radiokrypton from deep groundwater* *for geological disposal of high radioactive waste in Japan*
17.45 - 19.00	**Dinner**
19.00 -21.00	**Lab-Tour**

Wednesday, Sept 5, morning program

9.00 - 9.15	**Welcome**
9.15 - 10.30	**Analytical methods** session chair: Zheng-Tian Lu
9.15 - 9.45	Peter Mueller, Argonne National Laboratory *The TRACER Center at Argonne National Laboratory: Advances in Radiokrypton Dating*
9.45 - 10.15	Markus Oberthaler, Heidelberg University *ArTTA @ Heidelberg: Status and latest results on dating ocean samples*
10.15 - 10.30	Rohan D. Glover, Griffith University *Status of the Australian ATTA facility*
10.30 - 11.00	**Break**
11.00 - 11.30	**Analytical Methods, continued** session chair: Peter Mueller
11.00 - 11.30	Wei Jiang, USTC *New Developments at the Laboratory for Radiokrypton and Radioargon Dating at USTC*
11.30 - 12.00	Liangting Sun, CAS Institute of Modern Physics *An Intense Ion Beam System for ^{39}Ar Enrichment*
12.00 - 12.30	Reika Yokochi, The University of Chicago *Field degassing as a new sampling method for ^{14}C analysis in groundwater: Only one of the problems solved*
12.30 - 14.00	**Lunch**

Wednesday, Sept 5, afternoon program

14.00 - 15.30	**Groundwater** session chair: Roland Purtschert
14.00 - 14.30	Eilon M. Adar, Ben Gurion University of the Negev *^{81}Kr versus ^{14}C dating sheds new light on groundwater flow and recharge in alleged fossil aquifer* *- Example from the Nubian Sandstone aquifer extends beneath the Sinai and the Negev deserts*
14.30 - 15.00	Yoseph Yechieli, Geological Survey of Israel *Recent seawater intrusion into deep aquifer determined by the radioactive noble-gas isotopes ^{81}Kr and ^{39}Ar*
15.00 - 15.30	Neil C. Sturchio, University of Delaware *Radiokrypton Analyses of Brines at the Waste Isolation Plant, New Mexico*
15.30 - 16.00	**Break**
16.00 - 17.30	**Groundwater, continued** session chair: Martin Kralik
16.00 - 16.30	Werner Aeschbach, Heidelberg University *Paleoclimate reconstruction from groundwater and ice on the ^{39}Ar time scale*
16.30 - 17.00	Rein Vaikmäe, Tallinn University of Technology *Application of long lived radionuclides for characterizing and dating the groundwater and brines in the Cambrian aquifer system in Baltic states*
17.00 - 17.30	Yuji Sano, University of Tokyo *Sub-surface fluid cycling in volcanic-hydrothermal system*
17.45 - 19.00	**Dinner**
19.00 -21.00	**Poster Session**

Thursday, Sept 6, morning program

9.00 - 10.30	**Ice** session chair: Lei Geng
9.00 - 9.30	Vladimir Lipenkov, Arctic and Antarctic Research Institute *Ostwald ripening of air-hydrate crystals in polar ice sheets: A new tool for dating old meteoric ice*
9.30 - 10.00	Barbara Stenni, Ca' Foscari University of Venice *Dating the bottom part of the TALDICE ice core*
10.00 - 10.30	Daniel Baggenstos, University of Bern *Dating old ice using noble gas isotopes*
10.30 - 11.00	**Break**
11.00 - 12.30	**Ice, continued** session chair: Barbara Stenni
11.00 - 11.30	Guitao Shi, East China Normal University *Searching for the old ice in Antarctica: Chinese progress and plans*
11.30 - 12.00	Lide Tian, Yunnan University ^{81}Kr *dating of the Guliya Ice cap on the Qinghai-Tibetan Plateau*
12.00 - 12.30	Arne Kersting, Heidelberg University *Atmospheric* ^{85}Kr *measurements to derive an input function for dating of ice and water*
12.30 - 14.00	**Lunch**

Thursday, Sept 6, afternoon program

14.00 - 15.45	**Dating systematics and further applications** session chair: Yunchong Fu
14.00 - 14.30	Roland Purtschert, University of Bern *Underground production of ^{39}Ar in groundwater: Stand of knowledge*
14.30 - 14.45	Jake C. Zappala, Argonne National Laboratory *Determining the absolute abundance of atmospheric ^{81}Kr*
14.45 - 15.15	Michael Paul, Hebrew University *Trace detection of Ar, Kr noble-gas radioisotopes for nuclear astrophysics*
15.15 - 15.45	Marc William Caffee, Purdue University *AMS measurement of ^{41}Ca: Techniques and applications*
16.00	**Departure to Museum Tour & Conference Dinner**
dinner talk	Walter Kutschera, University of Vienna *The waxing and waning of Alpine glaciers throughout the last 10,000 years*

Friday , Sept 7, morning program

9.00 - 10.40	**Ocean circulation** session chair: Weidong Sun
9.00 - 9.40	Martin Stute, Columbia University ^{39}*Ar as tracer for changes in ocean circulation and determination of geochemical reaction rates in groundwater*
9.40 - 10.10	Xianyao Chen, Ocean University of China *Changing Phases of Atlantic Meridional Overturning Circulation and its Impact on Global Climate*
10.10 - 10.25	Jianing Wang, Institute of Oceanology, CAS *Pacific Deep Western Boundary Current at Yap-Mariana Junction*
10.25 - 10.40	Lina Yang, The first Institute of Oceanography *Spreading of the South Pacific Tropical Water and Antarctic Intermediate Water over the Maritime Continent*
10.40 - 11.00	**Break**
11.00 - 12.30	**Ocean circulation, continued** session chair: Werner Aeschbach
11.00 - 11.30	Jiwei Tian, Ocean University of China *Features and dynamics of abyssal circulation*
11.30 - 12.00	Reiner Steinfeldt, University of Bremen *Tracer based estimates of anthropogenic carbon in the Atlantic and improvements by additional* ^{39}*Ar data*
12.00 - 12.30	Rolf Kipfer, Eawag *The story of mini-Ruedi Ruessel or landing (noble) gas analytics in the field: towards real time insitu gas determination*
12.30 - 14.00	**Lunch**

Friday , Sept 7, afternoon program

14.00 - 15.30	**Groundwater** session chair: Guang-Cai Wang
14.00 - 14.30	Zhonghe Pang, Institute of Geology and Geophysics, CAS *Groundwater circulation in Guanzhong Basin as evidenced by isotope tracers*
14.30 - 15.00	Zongyu Chen, Inst. of Hydrogeology and Env. Geology, CAGS *First results of age dating of very old groundwater with ^{81}Kr in the North China Plain*
15.00 - 15.15	Jianyao Chen, Sun Yatsen University *Paleoclimatical signals from large aquifers with case studies in China*
15.15 - 15.45	**Break**
15.45 - 16.45	**Groundwater, continued** session chair: Neil C. Sturchio
15.45 - 16.15	Axel Suckow, CSIRO Land & Water *Australian multi-environmental tracer field studies and their potential for the application of ^{85}Kr, ^{39}Ar, ^{81}Kr*
16.15 - 16.30	Andrew Love, Flinders University *Can we use ^{81}Kr-dated groundwater as an archive of paleoclimate? An example from the western Great Artesian Basin, Australia*
16.30 - 16.45	Christopher Gerber, CSIRO Land & Water *Characterizing groundwater dynamics in the Red River Delta, Vietnam, with ^{39}Ar and ^{85}Kr*
16.45 - 17.30	**Summary**
17.45 - 19.00	**Dinner**
19.00 -21.00	**Traditional chinese instruments Concert**

Posters - Wednesday, Sept 5, 7-9 pm

1	Weikang Hu *USTC*	Optical pumping for enhancing the metastable krypton production in ATTA
2	Jie Wang *USTC*	Optical production of metastable krypton
3	Rohan D. Glover *Griffith University*	Laser-based excitation of noble gases for Atom Trap Trace Analysis
4	Lisa Ringena *Heidelberg University*	The Heidelberg ArTTA: Pushing the sample volume limit for ^{39}Ar dating
5	Amin L. Tong *USTC*	Towards ^{39}Ar-dating at USTC
6	Jake C. Zappala *Argonne National Laboratory*	Determining the absolute abundance of atmospheric ^{81}Kr
7	Xi-Ze Dong *USTC*	An automated system for dual purification of argon and krypton from environmental samples
8	Yan-qing Chu *USTC*	An automated system for continuous separation of krypton from the atmosphere
9	Tomoko Ohta *CRIEPI*	Separation of radio-Kr from deep groundwater for geological disposal of high radioactive waste in Japan
10	Adrien E. SY *The University of Chicago*	Potential use of noble gas radionuclides for assessing landslide susceptibility
11	Christoph Gerber *CSIRO Land & Water*	^{37}Ar as a tracer for groundwater residence times of a few months: A case study in the Emmental valley, Switzerland
12	Michael Heidinger *Hydroisotop GmbH*	High salinity Groundwaters in the basement faults and overthrusts of the Alps: a case study to determine residence times with ^{81}Kr/^{85}Kr
13	Michael Heidinger *Hydroisotop GmbH*	^{81}Kr feasibility study on deep thermal groundwaters in the karstified Upper Jurassic limestone of the Molasse basin
14	Daniel Emilio Martinez *University of Mar del Plata*	Perspectives for Application of ^{81}Kr dating of the Deep Thermal Aquifers of the Province of Buenos Aires, Argentina
15	Zhonghe Pang *Inst. of Geol. and Geophys., CAS*	Groundwater circulation in Guanzhong Basin as evidenced by isotope tracers
16	Roi Ram *Ben-Gurion University* *of the Negev*	Assessing the ^{36}Cl/Cl evolution with ^{81}Kr ages in brackish groundwater: a case study from the Nubian Sandstone Aquifer of the Negev Desert, Israel

17	Uri Kafri *Geological Survey of Israel*	What is the source and age of brines from the continental endorheic hyper saline lakes and the Sea bottom brine pools
18	Yoseph Yechieli *Geological Survey of Israel*	Recent seawater intrusion into deep aquifer determined by the radioactive noble-gas isotopes ^{81}Kr and ^{39}Ar
19	Dan Zhao *China University of Geosciences*	Estimation of groundwater age using multiple dating techniques in the Qaidam Basin, NW China
20	Peng Cheng *Institute of Earth Environment, CAS*	The study of DI^{14}C and DO^{14}C in Qinghai lake
21	Yunchong Fu *Institute of Earth Environment, CAS*	A new capability for ^{41}Ca analysis using CaF_3 at Xi'an-AMS
22	Tong-Yan Xia *USTC*	^{41}Ca trace analysis with a cold atom trap
23	Lili Shao *Yunnan University*	Dating of Qiangtang No.1 ice core in the middle of the Tibetan Plateau
24	Mo Wang *Institute of Tibetan Plateau Research, CAS*	How old are Tibetan ice caps ? in the middle of the Tibetan Plateau
25	Sven Ebser *Heidelberg University*	First ^{39}Ar-dating of small ocean samples
26	Zhongyi Feng *Heidelberg University*	Small sample ^{39}Ar dating of alpine glacier ice
27	Gaojun Li *Nanjing University*	Contribution of deep weathering in threshold landscape and its implication for uplift-driven climate change