

# Table of Contents

<b>Part I Conference Schedule .....</b>	<b>2</b>
<b>Part II Invited Speeches .....</b>	<b>3</b>
Invited Session 1: Environment .....	3
Invited Session 1: Psychology .....	6
Invited Session 2: Psychology .....	10
<b>Part III Technical Sessions.....</b>	<b>12</b>
Invited & Technical Session 1 : Environment .....	12
Technical Session 2 : Environment.....	13
Invited Session 2 & Technical Session: Psychology .....	14
<b>Part III Abstracts.....</b>	<b>16</b>
Technical Session 1: Environment.....	16
Technical Session 2: Environment.....	18
Technical Session: Psychology .....	24
<b>Part V Instructions for Presentations .....</b>	<b>29</b>
<b>Part VI Hotel Information .....</b>	<b>30</b>
<b>Contact Us .....</b>	<b>32</b>

# Part I Conference Schedule

**Time:** June 16 to 20, 2017

**Location:** Zhejiang Media Hotel (Hangzhou), China

Date	Time	Location
<b>June 16</b>	<b>14:00-17:00</b>	<b>Registration (Lobby)</b>
		星辰厅 Star Hall 2nd Floor
<b>June 17</b>	<b>08:30-12:00</b>	<p align="center"><b>Invited &amp; Technical Session 1: Environment</b></p> <p align="center">Prof. Hans-Uwe Dahms, Prof. Jie Chang, Dr. Longjian Liu,</p> <p align="center"><b>Chair: TBD</b></p> <p align="center"><b>Coffee Break: 10:00-10:20</b></p>
	<b>12:00-13:30</b>	<b>Lunch</b> [相约西餐厅 Western Restaurant 2 <sup>nd</sup> Floor]
	<b>14:00-18:00</b>	<p align="center"><b>Technical Session 2: Environment</b></p> <p align="center"><b>Chair: TBD</b></p> <p align="center"><b>Coffee Break: 15:30-15:45</b></p>
	<b>18:00-19:30</b>	<b>Dinner</b> [相约西餐厅 Western Restaurant 2 <sup>nd</sup> Floor]
<b>June 18</b>	<b>14:00-17:00</b>	<b>Registration (Lobby)</b>
		星辰厅 Star Hall 2nd Floor
<b>June 19</b>	<b>08:30-12:00</b>	<p align="center"><b>Invited Session 1: Psychology</b></p> <p align="center">Prof. Mark E. Williams, Prof. Shuhei Yamaguchi, Prof. Rogan Slavko, Prof. YU Sau-fung, Doris, Prof. J. Harold Ellens</p> <p align="center"><b>Chair: Prof. Mark E. Williams</b></p> <p align="center"><b>Coffee Break: 10:00-10:15</b></p>
	<b>12:00-13:30</b>	<b>Lunch</b> [相约西餐厅 Western Restaurant 2 <sup>nd</sup> Floor]
	<b>14:00-18:00</b>	<p align="center"><b>Invited 2 &amp; Technical Session: Psychology</b></p> <p align="center">Prof. Zheyu Jenny Yu, Dr. Vidya Sagar Athota, Prof. David Osher</p> <p align="center"><b>Chair: Dr. Vidya Sagar Athota</b></p> <p align="center"><b>Coffee Break: 15:30-15:45</b></p>
	<b>18:00-19:30</b>	<b>Dinner</b> [相约西餐厅 Western Restaurant 2 <sup>nd</sup> Floor]

## Part II Invited Speeches

### Invited Session 1: Environment

#### Invited Speech 1: Antibiotic resistance in aquatic systems: sources, sinks, and pathways

**Speaker:** Prof. Hans-Uwe Dahms, Kaohsiung Medical University

**Time:** 08:30-09:15, Saturday Morning, June 17, 2017

**Location:** Star Hall (星辰厅), 2nd Floor, Zhejiang Media Hotel (Hangzhou) (浙江梅地亚宾馆)



#### Abstract

Infectious diseases are on the rise. Over 250 million cases of gastroenteritis, respiratory diseases and more than 5 million cases of hepatitis are reported annually worldwide. Reasons for this are an ever increasing world population and the ease of travelling that enhances the risk of disease spread. An unprecedented rise of antibiotic resistance of most pathogenic microbes and viruses provides another serious health risk. We show that the aquatic environment with freshwater, brackish and seawater components provide a serious source of antibiotic resistant pathogens. Here, some pathogens even get more virulent than in their human host. This way environmental health as a branch of public health gets unexpected importance with several facets of the natural and man-made environment that affects human health. Three basic disciplines generally contribute to the area of environmental health: environmental epidemiology, toxicology, and exposure science. Information from these three disciplines can be combined to conduct a risk assessment for specific physical, chemical, or biological hazards. Such risk factors, separate or in combination, determine whether an exposure poses significant risks to human health. This can in turn be used to develop and implement environmental health policies that regulate chemical emissions, or impose standards for proper sanitation. This way environmental health management can become a tool of preventive medicine. Preventive medicine as a branch of public health attempts to prevent diseases such as infectious diseases, as opposed to disease treatment. Just as public health focusses on a variety of physical and mental states, so do disease and disability, which are affected by genetic predisposition, disease agents, lifestyle, and environmental factors. Public health provides an interdisciplinary approach to epidemiology, health services, and biostatistics, community health, behavioral health, health economics, public policy, occupational safety and environmental health. We will provide examples here from antibiotic resistance of human pathogenic bacteria that were collected from freshwaters, brackish and coastal waters. These are posing threats to food and drinking water safety of coastal populations and respective ecosystems. Green synthesis of nanostructures applied as novel antibiotics may provide a way out of the AB-resistance crisis. They can be produced at low cost and in a sustainable way.

## **Invited Speech 2: Increasing ecosystem services by artificial ecosystems and alleviating pressure on nature**

**Speaker:** Prof. Jie Chang, Zhejiang University, China

**Time:** 09:15-10:00, Saturday Morning, June 17, 2017

**Location:** Star Hall (星辰厅), 2nd Floor, Zhejiang Media Hotel (Hangzhou)  
(浙江梅地亚宾馆)



### **Abstract**

A major challenge of managing social-ecological systems is lacking distinct functional units for operating. In social-ecological systems, instead natural ecosystems, the artificial systems provide more and more goods and services for people directly, but they receive little attention by scientists. Here, we highlight the artificial systems as the functional units of social-ecological systems and propose a paradigm that regulating various artificial systems interconnected in a network. With the paradigm we can diagnose and optimize a social-ecological system by improving artificial systems, regulating quality and spatial distribution and improve the network. The paradigm, aims at providing sufficient goods and services for human being while reduce pressure on natural ecosystems, is a complementary approach of ecosystem-based management for the sustainability of social-ecological systems. It can be used as a general tool for analyzing and managing social-ecological systems.

## **Invited Speech 3: The Direct and Indirect Impact of Air Pollution on the Risk of Diabetes Mellitus: Findings from the City of Philadelphia Study in the United States**

**Speaker:** Dr. Longjian Liu, Drexel University, USA

**Time:** 10:15-11:00, Saturday Morning, June 17, 2017

**Location:** Star Hall (星辰厅), 2nd Floor, Zhejiang Media Hotel (Hangzhou) (浙江梅地亚宾馆)



### **Abstract**

Of the top 10 leading cause of death, heart disease is the number one killer of Americans, followed by cancers, chronic lower respiratory disease, accidents, stroke, Alzheimer's disease, diabetes mellitus (DM) and influenza (including pneumonia) in the United States. Of these leading causes, DM is a significant risk factor for cardiovascular disease (heart disease and stroke). Along with an increasing trend of overweight and obesity, DM has become a new epidemic, and posed a serious public health problem in the United States. However, whether air pollution plays a role in the risk of DM is largely unknown. In the present study, we aimed to examine this association using daily air quality monitoring data across 43 neighborhoods in

the city of Philadelphia (the 5<sup>th</sup> largest city in U.S.A) in 2008 and 2011, and linked data from the Southeastern Pennsylvania Household Health Surveys in 2008 and 2010 (n=8,566). Six major air pollutant indicators examined: carbon monoxide (CO), PM<sub>2.5</sub>, PM<sub>10</sub>, sulfur dioxide (SO<sub>2</sub>), lead, and nitrogen dioxide (NO). In data analysis, individual air indicators were adjusted for neighborhood's social economic status (SES) and population density. A sum weighted index of the six pollutants was calculated using factor analysis technique. The results show that prevalence of DM was positively and significantly associated with PM<sub>10</sub> and PM<sub>2.5</sub> (age-sex adjusted correlation coefficients,  $r = 0.61$ ), followed by NO ( $r=0.59$ ), CO ( $r=0.55$ ), SO<sub>2</sub> ( $r=0.43$ ), and lead index ( $r=0.32$ ) across 43 neighborhoods. Multilevel regression analysis suggested that residents who lived in the highest polluted neighborhoods (Q5 of the sum index) had 1.46 times higher relative risk of DM (95%CI: 1.08-1.97) than those who lived in the lowest polluted neighborhoods (Q1). This association was independent of age, sex, race, smoking and physical activity status (individual level). However, this association became non-significant (OR=1.34, 95%CI: 0.97-1.85,  $p=0.08$ ) after including adjustment for major components of metabolic syndrome (obesity, hypercholesterolemia and hypertension). In conclusion, air pollution is significantly associated with the risk of DM. This association may be partly explained by a pathway of the complex associations with major components of metabolic syndrome.

## **Invited Speech 4: A threatened ocean – curriculum development related to marine pollution**

**Speaker:** Prof. Hans-Uwe Dahms, Kaohsiung Medical University

**Auhtors:** Mei-fang Cho<sup>1</sup> and Hans-Uwe Dahms<sup>2</sup>

<sup>1</sup>Department of Childcare and Education, Southern Taiwan University, 1, Nan-Tai Street, Yung-Kang City, Tainan County, Taiwan R.O.C., e-mail: mfcce@stust.edu.tw

<sup>2</sup>Kaohsiung Medical University, Dept. of Biomedical Science and Environmental Biology No. 100, Shin-Chuan 1st Road, KAOHSIUNG 80708

**Time:** 14:00-14:40, Saturday Afternoon, June 17, 2017

**Location:** Star Hall (星辰厅), 2nd Floor, Zhejiang Media Hotel (Hangzhou) (浙江梅地亚宾馆)



### **Abstract**

With increased population sizes world-wide and technological and industrial advancements, humans have caused substantial damage to the natural environment on earth. At the same time has increasing urbanization in the last decades detached people from nature and from opportunities to experience and interact with places and organisms of the natural environment. We designed a curriculum in “Environmental Education” that focusses on the dissemination of knowledge about oceanic pollution. This contains recommendations for the use of “Ocean Sciences” for curriculum development at different age groups. Particular curriculum elements include: knowledge about the origin and presence of pollutants as well as the general and health effects of pollutants; skills in the avoidance of polluted areas and protection as well as awareness of environmental hazards. Besides learners, we

focus on the professional development of staff and the involvement of families to gain knowledge about the environment and its pollutants.

## **Invited Session 1: Psychology**

### **Invited Speech 1: The Framework of a Novel Approach for the Analysis of Human Movement for Clinical Purposes**

**Speaker:** Prof. Mark E. Williams, University of North Carolina, USA

**Time:** 08:30-09:15, Monday Morning, June 19, 2017

**Location:** Star Hall (星辰厅), 2nd Floor, Zhejiang Media Hotel (Hangzhou) (浙江梅地亚宾馆)



#### **Abstract**

Recent technological advances have led to the development of small wearable microelectronic sensors (accelerometers) that detect motion, gravitational acceleration, and velocity with six degrees of freedom (forward-backward, up-down, and side-to-side plus rotational vectors). We have used these motion sensors to create new analytical tools called biokinematographs (BKGs). BKGs allow for more precise screening, diagnosing, monitoring, assessment and predicting of function of elderly people as they ambulate using sophisticated analysis of the unique electronic motion signature of each person. Remarkable visual differences in “functional walking signatures” are evident on the BKGs between fallers and non-fallers. This presentation will summarize our current efforts to translate this new technology into novel clinical and research tools for improving function, reducing injurious falls, and diagnosing orthopedic and neurological conditions for elderly people.

### **Invited Speech 2: Cognitive and motor functions and brain intrinsic network in aged people**

**Speaker:** Prof. Shuhei Yamaguchi, Shimane University, Japan

**Time:** 09:15-10:00, Monday Morning, June 19, 2017

**Location:** Star Hall (星辰厅), 2nd Floor, Zhejiang Media Hotel (Hangzhou) (浙江梅地亚宾馆)



#### **Abstract**

Aging is associated with deterioration in a number of cognitive functions. Many studies have demonstrated the beneficial effect of physical fitness on

cognitive function, especially executive function. The graph theoretical approach models the brain as a complex network represented graphically as nodes and edges. We analyzed several measures of executive function, an index of physical fitness, and resting-state functional magnetic resonance imaging data from healthy older volunteers to elucidate the associations among executive function, cardiorespiratory fitness, and brain network properties. The topological neural properties were related to the level of executive function and/or physical fitness. Global efficiency, which represents how well the whole brain is integrated, was positively related, whereas local efficiency, which represents how well the brain is functionally segregated, was negatively related, to the level of executive function and fitness. The associations among executive function, physical fitness and topological resting state functional network property appear related to compensation and dedifferentiation in older age. A mediation analysis showed that high-fit older adults gain higher global efficiency of the brain at the expense of lower local efficiency. These findings suggest that physical fitness may be beneficial in maintaining executive function in healthy aging by enhancing the efficiency of the global brain network.

### **Invited Speech 3: Physical activity in elderly population – the best drug\***

**Speaker:** Dr. Rogan Slavko, Bern University of Applied Sciences (BUAS), Switzerland

**Time:** 10:10-10:55, Monday Morning, June 19, 2017

**Location:** Star Hall (星辰厅), 2nd Floor, Zhejiang Media Hotel (Hangzhou)  
(浙江梅地亚宾馆)



#### **Abstract**

Physical activity can promote and maintain health as well as extend years of independent living in later life. Therefore, physical activity may be considered a highly effective drug. It is an accepted truth, that ageing is associated with the decline of physical functional capacity such as balance, cardiopulmonary endurance, flexibility, muscular strength and muscular endurance. Consequently, training programs should aim to improve or maintain physical performance level and health status. The World Health Organization and the American College of Sports Medicine have recommended guidelines on Physical Activity and Public Health.

Before prescribing exercise regimes to elderly individuals, two factors should be considered. Firstly, the human body has two types of ages: the chronological age and the biological age. The chronological age describes the age based on the calendar date. The biological age describes the current state of the physical and mental function of the individual. Since chronological age is not adequate in determining physical function level, emphasis must be placed on biological age. Secondly, elderly individuals may prefer to abstain from physical activity due various reasons including time constraints, limited interest, or they may find exercise too vigorous.

Therefore, the following aspects should be taken into account when initiating or maintaining an individual exercise program:

- 1) Assessment of current physical functional level.
- 2) Assessment of structures including muscles that cause certain conditions.

3) Evaluation of motivational aspects.

Due to the various forms of physical and mental functions of biological age, individuals should be classified into three categories: independent person (Go-Go), needy person with slight handicap (Slow-Go) and person in need of care with severe functional limitation (No-Go).

Program implementation breakdown is as follows: movement therapy and exercise in the No-Go group (especially elderly individuals with mobility disability) should be designed so that they be performed within a short time frame. Movement therapy and exercise regimes should include specific components of balance, strength and cognition. Slow-Go and Go-Go elderly individuals may participate in traditional training regimes, in contrast to No-Go elderly individuals who have limited physical functional capacity, among other issues.

This presentation illustrates how to classify, train and motivate the elderly individual.

Keywords: ageing, exercise, motivation

## **Invited Speech 4: Cognitive functioning in healthy aging: the role of an active and socially integrated lifestyles**

**Speaker:** Prof. Doris YU, The Chinese University of Hong Kong, Hong Kong (China)

**Time:** 10:55-11:40, Monday Morning, June 19, 2017

**Location:** Star Hall (星辰厅), 2nd Floor, Zhejiang Media Hotel (Hangzhou)  
(浙江梅地亚宾馆)



### **Abstract**

Healthy and active aging is about enabling older adults to enjoy a fulfilling and engaging life, and to maintain active roles in the society. Maintaining an optimal cognitive function is a highly important pre-requisite to achieve this purpose. We have conducted a longitudinal study to examine how late-life activity participation, sleep quality, psychological health and disease burden affected the changes in objective cognitive function and subjective memory over 12 months among a cohort of Chinese older adults in Hong Kong. We found that late-life activity participation can counteract the detrimental effect of physical and psychological risk factors on cognitive health. Whereas participation in social and intelligent activities play a key role in maintaining the objective cognitive function, physical activities uptake is crucial to maintain the subjective memory. This presentation will provide evidence-based recommendations on how to develop innovative service to promote cognitive health in later life.



## **Invited Speech 5: How to help Chinese students cope emotional difficulties while studying in US**

**Speaker:** Prof. Zheyu Jenny Yu, University of Pennsylvania, USA

**Time:** 11:40-12:25, Monday Morning, June 19, 2017

**Location:** Star Hall (星辰厅), 2nd Floor, Zhejiang Media Hotel (Hangzhou) (浙江梅地亚宾馆)



### **Abstract**

**Objective:** As the number of Chinese international students studying in the US increases, it is crucial for child and adolescent mental health professionals to become familiar with the mental health challenges this population faces, and to be equipped with specific strategies to help them.

**Background:** So far most studies on international students in the US focused on undergraduate and graduate students; very little is documented about middle and high school students studying here. Like college students, these younger age students face significant but developmentally more challenging stresses, including separation from their parents, adjusting to a new school and cultural environment, language barriers and learning how to advocate for themselves when living with host families. Misra et al. described how international students endure two types of stressors: the initial stressors of life stress related to cultural adjustments, language and financial problems; and the secondary stressors surrounding academic success. Yan & Berliner used Berry's stress-coping framework to illustrate Chinese international students' personal and sociocultural stressors in the United States. Difficulties in coping with these stresses can lead to academic and/or social emotional issues. Without appropriate support and help, these students may face dire consequences.

**Methods:**

- 1). Speaker will present the knowledge and experience by presenting specific clinical cases and sharing clinical insights.
- 2). Speaker will discuss the systems of care that might be involved in treating Chinese international students.
- 3). Speaker will highlight the unique legal, cultural and educational concerns that these international students face.

**Results:** Obtaining knowledge on the topic of unique mental health challenges of Chinese international students will help mental health professionals building culturally competent clinical practices. This, in turn, will improve the care and outcome of Chinese international students with potential emotional/behavioral/academic difficulties.

**Conclusion:** Given the ever-expanding diversity and needs of 21st century children in the United States, child and adolescent mental health professionals will greatly benefit from expertise and knowledge concerning their clinical experiences on this topic, where research and resource have been limited.

## Invited Session 2: Psychology

### Invited Speech 1: Eudaimonia: Wellbeing and innovation in knowledge intensive contexts

**Speaker:** Dr. Vidya Sagar Athota, The University of Notre Dame Australia, Australia

**Time:** 14:00-14:45, Monday Afternoon, June 19, 2017

**Location:** Star Hall (星辰厅), 2nd Floor, Zhejiang Media Hotel (Hangzhou) (浙江梅地亚宾馆)



#### Abstract

With an increasing incidence of globalization of work, there is emerging evidence also of work intensification, not just for blue-collared workers but also knowledge workers. Increased workload may have an adverse impact on an individual's subjective well-being outcomes. The concept of subjective wellbeing has become a subject of great interest for economists, sociologists, psychologists, management scholars and policy makers in order to improve quality of life. The existing empirical research evidence suggests that individual wellbeing plays a pivotal role in establishing ground for a resilient spirit. Despite conceptual overlap, there is no existing research on how wellbeing and resilience influences creativity and consequently innovation outcomes among knowledge workers in an increasingly globalized dispersion of work. The aim of the proposed presentation is to shed light on the association between wellbeing and human capital, and how effectively wellbeing contributes to resilience and innovation in organizations.

### Invited Speech 2: Schools play a key role in fostering well-being and resilience

**Speaker:** Prof. David Osher, American Institutes for Research, USA

**Time:** 14:45-15:30, Monday Afternoon, June 19, 2017

**Location:** Star Hall (星辰厅), 2nd Floor, Zhejiang Media Hotel (Hangzhou) (浙江梅地亚宾馆)



#### Abstract

Schools play a key role in fostering well-being and resilience. This, in turn, affects academic achievement. Although the school's role is important for all students, it is particularly important for students who have experienced adversity, particularly trauma, which may compromise the capacity of the student to develop healthy relationships and manage emotions and behavior. The school's role particularly important for students who struggle with disability, discrimination, cultural marginalization, and community risk factors. Schools can buffer risk as well as support the development of positive psychological attributes. However, schools may

also function as an added risk factor, creating or exacerbating problems in youth development as well as in learning. This talk will draw upon research done on 5 continents that shows how schools can become safe, supportive, and academically successful settings.

## Part III Technical Sessions

### Invited & Technical Session 1 : Environment

Session Chair: TBD

Star Hall (星辰厅), 2nd Floor

14:00-18:00, Saturday Morning, June 17, 2017

No.	Paper Title	Author	Affiliation
<b>Invited</b> 08:30-09:15	Antibiotic resistance in aquatic systems: sources, sinks, and pathways	Prof. Hans-Uwe Dahms	Kaohsiung Medical University
<b>Invited</b> 09:15-10:00	Increasing ecosystem services by artificial ecosystems and alleviating pressure on nature	Prof. Jie Chang	Zhejiang University, China
<b>10:00-10:15 Coffee Break</b>			
<b>Invited</b> 10:15-11:00	TBD	Dr. Longjian Liu	Drexel University, USA
<b>1-1</b> 11:00-11:15	A Method to Determine the Margins of High Sea Ice Concentration Using AMSR-E passive microwave imagery	Shugang Zhang	Shandong Academy of Sciences
<b>1-2</b> 11:15-11:30	Research of Hydrochemical properties of Hyporheic zone along the WeiHe River in Shanxi segment	Nan Zhang	Yellow River Institute of Hydraulic Research
<b>1-3</b> 11:30-11:45	Rainfall and vertical velocity characteristics from drop size and fall velocity spectra observed by Parsivel disdrometers	DONG KYUN KIM	Pukyong National University
<b>1-4</b> 11:45-12:00	Speciation and Mobility of Phosphate in the Eutrophic Ponds at Prospect Park, Brooklyn, New York and Eutrophic Ponds at Prospect Park, Brooklyn, New York	Ying Liu	Brooklyn College of City U of New York
<b>1-5</b> 12:00-12:15	Asexual Propagation and Growth of Seven Aquatic Plant Species under Saline Growing Conditions	Xianwei Cheng	Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences

## Technical Session 2 : Environment

Session Chair: TBD

Star Hall (星辰厅), 2nd Floor

14:00-18:00, Saturday Afternoon, June 17, 2017

No.	Paper Title	Author	Affiliation
<b>Invited</b> 14:00-14:45	A threatened ocean – curriculum development related to marine pollution	Prof. Hans-Uwe Dahms	Kaohsiung Medical University
<b>2-1</b> 14:45-15:00	Effective Inhibiting Effect on Nitrogen Leaching in a Field Wood-chip Bioretention System	Zhexi Wan	Tongji University
<b>2-2</b> 15:00-15:15	Genotoxic potency ranking of particulate matter from biomass, coal and diesel fuel combustion	Richard Gminski	Institute of Environmental Health Sciences
<b>2-3</b> 15:15-15:30	GIS-based Analysis of Groundwater Quality in Saipan, CNMI, USA	Yuming Wen	University of Guam
<b>2-4</b> 15:30-15:45	Sustainable use of piggery waste in Micronesia with a focus on energy production	Joseph Rouse	University of Guam
<b>2-5</b> 15:45-16:00	Health Impacts of Occupational Exposure on Workers Exposed to Petroleum Wastes	Malik Hayat	COMSATS University, Pakistan
<b>16:00-16:15</b>	<b>Coffee Break</b>		
<b>2-6</b> 16:15-16:30	Adsorption of Sulfamethoxazole on Nanoporous Carbon Derived from Metal-Organic Frameworks	yuxin Li	Dalian University of Technology
<b>2-7</b> 16:30-16:45	Fe-MOF derived Ferrous Hierarchically Porous Carbon used as EF Cathode for PFOA Degradation	Xiaoyu Liu	Dalian University of Technology
<b>2-8</b> 16:45-17:00	Fabrication and Photoelectrochemical Performance of Si Nanowire Photoelectrode Structured with Quantum Size Surface	Shiyi Yu	Dalian University of Technology, China
<b>2-9</b> 17:00-17:15	Study of Performance of Modified Oyster Shell for Phosphorus Removal	Huan Wang	Dalian University of Technology
<b>2-10</b> 17:15-17:30	Concentration Response Functions for Air Pollution related Health Risk Assessment in South Korea	Jongsik HA	Korea Environment Institute

<b>2-11</b> 17:30-17:45	Study on Probability Estimation of Haze in Beijing Based Logistic Regression Model	Zhang Tian	North China Electric Power University
<b>2-12</b> 17:45-18:00	Impact of Steel Industry on Local Environment and workers Health	Ifra Yasmeen	COMSATS University
<b>2-13</b> 18:00-18:15	Climate change impacts on heat-related mortality in large urban areas in China	Ying Li	East Tennessee State University
<b>2-14</b> 18:15-18:30	POTENTIAL LEAD TOXICITY IN LOHI SHEEP GRAZING AROUND A SEWERAGE DRAIN IN JHANG, PAKISTAN	M Younus Rana	University of Veterinary and Animal Sciences

## Invited Session 2 & Technical Session: Psychology

Session Chair: Dr. Vidya Sagar Athota, The University of Notre Dame Australia, Australia

Star Hall (星辰厅), 2nd Floor

14:00-18:00, Monday Afternoon, June 19, 2017

No.	Paper Title	Author	Affiliation
<b>Invited</b>	Eudaimonia: Wellbeing and innovation in knowledge intensive contexts	Dr Vidya Sagar Athota	The University of Notre Dame Australia
<b>Invited</b>	Schools play a key role in fostering well-being and resilience	Prof. David Osher	American Institutes for Research
<b>15:30-15:40</b>	<b>Coffee Break</b>		
<b>15:40-15:55</b>	Positive Well-being and Work-life Balance among UK Railway Staff	Jialin Fan	Cardiff University, United Kingdom
<b>15:55-16:10</b>	The possible psychological mechanism of salient strength training by increasing positive emotion of college students	Qianyun Sun	Wuxi Mental Health Center
<b>16:10-16:25</b>	Achievement emotions and academic achievement of vocational students: How do they feel in learning and class-related situations?	Lan Yang	Education University of Hong Kong
<b>16:25-16:40</b>	A Novel Noninvasive Approach to Measuring Function and Fall Risk in Elderly People Using Wearable Sensor Technology	John Williams	UNC Wilmington

<b>16:40-16:55</b>	To apply and to develop more smart systems/technologies and biomimetics in helping the advancing in healthy and active aging	C. S. Chen	National Tsing Hua University
<b>16:55-17:10</b>	Biomedical and psychological factors influencing self-reported heart conditions in a British cohort	Helen Cheng	University College London
<b>17:10-17:25</b>	Research on the relationship among phone addiction, social anxiety and loneliness in high school students	Junlan Xu	the Sechond High School Attached to Beijing Normal University
<b>17:25-17:40</b>	The effect of study abroad experience on self-efficacy and private college stigma:socialisation degree as a moderator	Wei ling cai	Yango College
<b>17:40-17:55</b>	HOW THE DISABILITY WOMEN LIVE?: a study socio-psychology	Grace Mun Man Shum	University of Huelva
<b>17:55-18:10</b>	Factors of Adherence to Antiretroviral Therapy among HIV+ Patients in Guangxi, China	Zhiwen Xiao	Valenti School of Communication University of Houston

## Part III Abstracts

### Technical Session 1: Environment

**ID:** HOAC2017\_10001

**Paper Title:** A Method to Determine the Margins of High Sea Ice Concentration Using AMSR-E passive microwave imagery

**Name:** Shugang Zhang

**Affiliation:** Shandong Academy of Sciences

**Email:** zhangshugang@163.com

#### Abstract

The margin of the sea ice with high sea ice concentration is a principal feature in micro-wave image and a hotspot in image recognition. A method for determining the margins is developed using the feature of dual-polarized brightness temperatures at 36.5 GHz and a new parameter (contrast ratio) is used in this paper. For the microwaves, the ratio of the horizontal-polarized emissivity to the vertical-polarized emissivity is approximately equal to the ratio between horizontal-polarized and vertical-polarized brightness temperatures of sea surface, which called as the dual-polarized emissivity ratio in this study. It is found that the dual-polarized emissivity ratio of sea ice with nearly 100% sea ice concentration in Arctic at 36.5 GHz band has a value ranged between 0.92 and 0.96, as shown by satellite-observed data in figure of horizontal-polarized brightness temperature versus vertical-polarized brightness temperature. From open water to sea ice covered area, the contrast-ratio can show the changing features of the dual-polarized brightness temperature at 36.5 GHz. The contrast ratio rapidly changes at the ice margins and its gradient appears an extreme value when the ratio changes around 0.92. This extreme value is examined by the ice concentration calculated by the MODIS data. And the results indicate that the threshold ratio coincides with the contour line of 96% sea ice concentration. So the parameter of contrast ratio could be used to determine the position of margins in microwave image.

**ID:** HOAC2017\_10002

**Paper Title:** Research of Hydrochemical properties of Hyporheic zone along the WeiHe River in Shanxi segment

**Name:** Nan Zhang

**Affiliation:** Yellow River Institute of Hydraulic Research

**Email:** zhangnan19810202@126.com

#### Abstract

By sampling the undercurrent belts of riverfront, shoal and riverbed at Xia-nyang, Xi'an, Lintong and Huaxian in Weihe basin of Shaanxi province in the summer and winter of 2014 and analyzed the water chemical character through Piper trilinear chart, This thesis has come to the following conclusions: (1) PH in shoal range from 7.42 to 7.98, and in riverfront, the average is 7.58, present alkaline. The TDS in riverfront is higher than that of river water, it range from 506.5 to 824, 616.06 mg.L<sup>-1</sup> in average. (2) All of the water at riverfront, shoal and riverbed under the influence of carbonate. The concentration of ionic concentration at shoal is between riverbed and river-front, by contrast, it close to riverfront. This result means the shoal recharged by both surface and river water, and the groundwater recharge is more conspicuous than surface water. Besides, from upstream to downstream, the two kinds of main ions (HCO<sub>3</sub><sup>-</sup> and Ca<sup>2+</sup>) have little change in the same river, it related to the such factors as river evaporation, the exchange interaction of surface and underground water and so on.

**ID:** HOAC2017\_10005

**Paper Title:** Rainfall and vertical velocity characteristics from drop size and fall velocity spectra observed by Parsivel disdrometers

**Name:** DONG KYUN KIM

**Affiliation:** Atmospheric Environmental Research Institute, Pukyong National University



**Email:** otieno@hanmail.net

### **Abstract**

During a summer monsoon season each year, severe weather phenomena caused by front, mesoscale convective systems, or typhoons often occur in the southern Korean Peninsula where is mostly comprised of complex high mountains. These areas play an important role in controlling formation, amount, and distribution of rainfall. As precipitation systems move over the mountains, they can develop rapidly and produce localized heavy rainfall. Thus observational analysis in the mountainous areas is required for studying terrain effects on the rapid rainfall development and its microphysics. We performed intensive field observations using two S-band operational weather radars around Mt. Jiri (1950 m ASL) during summertime on June and July in 2015-2016. Observations of drop size distribution (DSD) from Parsivel disdrometer and vertical velocity ( $w$  component) from ultrasonic anemometers were analyzed for Typhoon Chanhom on 12 July 2015 and the heavy rain event on 1 July 2016. During the heavy rain event, a dual-Doppler radar analysis using Jindo radar and Gunsan radar was also conducted to examine 3-D wind fields and vertical structure of reflectivity in these areas. For examining up-/downdrafts in the windward or leeward side of Mt. Jiri, we developed a new scheme technique to estimate vertical velocities ( $w$ ) from drop size and fall velocity spectra of Parsivel disdrometers at different stations. Their comparison with the  $w$  values observed by the 3D anemometer showed quite good agreement each other. The Z histogram with regard to the estimated  $w$  was similar to that with regard to rain rate ( $R$ ), indicating that Parsivel-estimated  $w$  is quite reasonable for classifying strong and weak rain, corresponding to updraft and downdraft, respectively. Mostly, positive  $w$  values (upward) were estimated in heavy rainfall at the windward side (D1 and D2). Negative  $w$  values (downward) were dominant even during large rainfall at the leeward side (D4). For D1 and D2, the upward  $w$  percentages were larger than the downward  $w$  percentages. At the leeward side, the downward  $w$  percentages were larger than the upward at D4. Importantly, this suggests that rainfall with  $R > 10$  mm hr<sup>-1</sup> at the leeward side was more associated by negative

$w$ -components of winds. Therefore, we confirmed the possibility of  $w$  (up/downdraft) estimation from Parsivel disdrometer observations and a quantitative contribution of  $w$  in orographic precipitation, roughly. In addition, the rain rate, radar reflectivity and vertical velocity characteristics are all related to the size and fall velocity spectra distributions from Parsivel. The vertical velocities contributed to the orographic precipitation development and dissipation and they clearly showed different values with  $R$  variation between the windward side and leeward side.

**ID:** CSWCER2017\_10004

**Paper Title:** Speciation and Mobility of Phosphate in the Eutrophic Ponds at Prospect Park, Brooklyn, New York  
**he Eutrophic Ponds at Prospect Park, Brooklyn, New York**

**Name:** Ying Liu

**Affiliation:** Brooklyn College of City U of New York

**Email:** yliu@brooklyn.cuny.edu

### **Abstract**

The water system at the Prospect Park ponds of Brooklyn, NY has been receiving chronic loads of phosphorus (P) from the municipal water since the mid '90s. High levels of sediment P resulted from the chronic external input. The ponds are currently eutrophic with degraded water quality. In this study the distribution and speciation of P within the water column was studied within the dynamic flow and in lake sediment were investigated for P fractionation and their potential to release. The dominant form of P in the water was found to be soluble reactive phosphate (SRP) and the temporal change of SRP indicated significant internal loading from the sediment during late summer enhanced by the algal bloom through different processes. P bound to Fe-hydroxides was found to be the dominant form of P in the sediment. Both external and internal P pools are important and should be taken into consideration for restoration plans.

**ID:** CSWCER2017\_10002

**Paper Title:** Asexual Propagation and Growth of Seven

## **Aquatic Plant Species under Saline Growing Conditions**

**Name:** Xianwei Cheng

**Affiliation:** Northeast Institute of Geography and Agroecology, Chinese Academy of Sciences

**Email:** gaoxiaoshang2366@163.com

### **Abstract**

Many studies on plant salt tolerance have focused on the responses of halophytes to salt stress related to their germination and sustained growth. The objective of this study was to determine the salt tolerance of seven aquatic plant species under different salinity treatments during asexual reproduction and at different plant growth stages. The tested plants were exposed to five salinity treatments under greenhouse conditions. Data on asexual reproduction and growth were recorded for 30 days, as well as the chlorophyll content index in leaves, and the Na<sup>+</sup> and K<sup>+</sup> concentrations in both above-ground and below-ground biomass the following in the tested aquatic species at harvest. The results of this study showed that: 1) increase of salinity generally inhibited the capacity of

asexual reproduction, especially at a salinity level of EC  $\geq 15$  dS/m; 2) chlorophyll content index in leaves decreased steadily with the increasing salinity level; 3) total dry biomass of plants was significantly and negatively related to asexual reproduction of plants; 4) Na<sup>+</sup> concentrations increased with the increasing NaCl salinity; 5) K<sup>+</sup> concentrations did not markedly changed, but increased in specific parts of specific species with the increasing salinity concentration, although there was no extra addition of potassium salts; and 6) species-specific salt tolerance mechanisms were showed (eg., the control of Na<sup>+</sup> transportation from root to shoot, and the maintenance of ionic balance by regulating Na<sup>+</sup>/K<sup>+</sup> ratio) as indicated by the Na<sup>+</sup> and K<sup>+</sup> concentrations and Na<sup>+</sup>/K<sup>+</sup> ratios in different parts of plants. In general, Canna (*Canna indica*), giant reed (*Arundo donax*) and alligator weed (*Alternanthera philoxeroides*) showed better asexual reproduction and growth capacity under high salt stress, and they should be considered as potential plant species used in the restoration of degraded saline wetlands.

## **Technical Session 2: Environment**

**ID:** EPPH2017\_10003

**Paper Title:** Effective Inhibiting Effect on Nitrogen Leaching in a Field Wood-chip Bioretention System

**Name:** Zhexi Wan

**Affiliation:** College of Environmental Science and Engineering, Tongji University

**Email:** zhexiwan@163.com

### **Abstract**

Bioretention systems designed to manage stormwater have serious problems with ni-trogen leaching. The addition of wood chips could effectively address this problem in the laboratory bioretention experiments. The ability of these systems to transform and remove different nitrogen species, however, was not well studied in field condition. Here we reported a wood-chip bioretention system that received elevated runway run-off. The fate and accumulation of different nitrogen species are analyzed in detail. The

results indicated that the wood-chip bioretention system could have little nitrogen leaching even in complicated rainfall events. In addition to the accumulation of partic-ulate organic nitrogen in the media, most of the nitrogen was finally converted to ni-trate. The nitrate removal was mainly through denitrification in both dry and wet period and was comprehensively affected by antecedent dry period, antecedent rainfall depth and outflow rate. Overall, this study demonstrated the effectiveness of wood chips in inhibiting the nitrogen leaching in field bioretention system, and suggested complexity of the nitrogen removal process in the presence of wood chips.

**ID:** EPPH2017\_10007

**Paper Title:** Genotoxic potency ranking of particulate matter from biomass, coal and diesel fuel combustion

**Name:** Richard Gminski

**Affiliation:** Institute of Environmental Health Sciences

**Email:** richard.gminski@uniklinik-freiburg.de

#### **Abstract**

Background. Anthropogenic activities are the major cause of environmental air pollution. In Germany, exhaust gases given out by motor vehicles and the burning of fossil fuels have been identified as the main source of particulate matter (PM), whereby biomass combustion is now considered to be one of the principle contributors for PM (nearly 50% of PM<sub>10</sub>). PM in air pollution is associated with an increased risk of various diseases, but especially with lung cancer. This study focuses on comparison of the genotoxic risks of PM produced during beech wood burning (WSPbeech; aerodynamic diameter: 0.4 – 1 µm) with the references materials coal fly ash (CFA BCR-038; aerodynamic diameter: 10 µm) and diesel particulate matter (DPM SRM-2975; aerodynamic diameter: 1.6 µm).

Methods. Quantitative analysis of PAH and heavy metals of PM was carried out by High Performance Liquid Chromatography (HPLC) and ICP-MS; microstructures and spectroscopic characteristics with respect to particle size and shape by TEM analysis. Double-strand DNA (ds-DNA) damage induced by WSPbeech, CFA and DPM were assessed by the DNA alkaline unwinding assay (DAUA) using human lung epithelial cells A549.

Results. PAH and heavy metal levels were highest in WSPbeech (2458 mg/kg and 14059 mg/kg, respectively). After 24-h exposure of A549 human lung cells to WSPbeech (LOAEL 30 µg/cm<sup>3</sup>), CFA (10 µg/cm<sup>3</sup>) and DPM (LOAEL 10 µg/m<sup>3</sup>), genotoxic effects were found in a concentration-dependent manner. The particles also induced cytotoxic effects.

Conclusion. The three investigated PMs induced DNA damage in human lung cells to a similar extent. In terms of genotoxicity, the ranking from most toxic to least toxic was DPM, CFA and WSPbeech. Therefore, with knowledge of the genotoxic potential of the investigated PM, developing strategies to reduce PM air pollution must be given the highest public health priority worldwide.

**ID:** EPPH2017\_10009

**Paper Title:** GIS-based Analysis of Groundwater Quality in Saipan, CNMI, USA

**Name:** Yuming Wen

**Affiliation:** University of Guam

**Email:** ywen@triton.uog.edu

#### **Abstract**

The main purpose of the research aimed to create a GIS based model for processing, visualization and analysis of the groundwater quality data in Saipan, the Commonwealth of the Northern Mariana Islands (CNMI), USA. In order to address the purpose, a Visual Basic for Applications (VBA) based GIS model has been created to process the ground water quality data spatially and temporally. The model can be applied to visualize and analyze water quality data, and identify deficient wells with contaminants more straightforward. The model can be employed to represent any contaminant in any well temporally, and any contaminant for all wells in any specific time. The information and results from the research can be utilized to combine with other information such as land cover and/or land use change, climate change, population dynamics and health data to evaluate whether there is relationship between land cover change and/or human induced activities and water quality in Saipan, impacts of climate change, particularly extreme climate events such as typhoons and droughts on water quality, and how water quality affects human health and ecosystems in Saipan, CNMI.

**ID:** EPPH2017\_10010

**Paper Title:** Sustainable use of piggery waste in Micronesia with a focus on energy production

**Name:** Joseph Rouse

**Affiliation:** University of Guam

**Email:** rousej@triton.uog.edu

#### **Abstract**

In Micronesia, pig farming is a common practice. Households may have one to three animals for personal use and sometimes as many as ten. The greater the density of livestock, the greater the excess of manure becomes

beyond that which can be incorporated into the local environment. With proper management, though, manure can be used as a fertilizer or soil conditioner for enhanced crop production. Another value that can be drawn from the manure is that of biogas production, though this activity has often been written off as being too difficult for remote locations lacking technical support, or for small-scale operations where the capital expense would be prohibitive. Results of field surveys on the main island of Pohnpei State revealed considerable progress in applying composting practices for constructive use of pig waste by NGOs. In addition, over the past three years 25 household-scale anaerobic digesters have been installed with assistance from a Chinese Aid project that would not otherwise have been possible. However, in Yap State, much less progress has been made mainly due to cultural concerns, including some hesitation in allowing for input from a foreign government. Conversations with the local Yapese, though, revealed a great interest in making progress in this area with some first fruits of their entrepreneurial spirit already evident. Of unique interest was the discovery of the ruins of a digester at a defunct piggery that incorporated a clever arrangement biogas collection and treatment of digester effluent using hydroponics in one compact framework. It is hoped that this discovery may help to educate the local community and further encourage ecologically minded waste management on the island.

**ID:** EPPH2017\_10013

**Paper Title:** Health Impacts of Occupational Exposure on Workers Exposed to Petroleum Wastes

**Name:** Malik Hayat

**Affiliation:** Environmental Sciences, COMSATS University, Abbottabad Pakistan

**Email:** mtahir@ciit.net.pk

#### **Abstract**

In Pakistan automobile industry flourishing very fast and due to these automobile workshops also increasing with same rate. Wide range of petroleum products used in automobiles workshops. Wastes from these automobile workshops cause negative impact on human health

especially on the workers working in the automobile workshop. Wastes generated from automobile workshops consist of different petroleum fractions which are mostly organic in nature and bring persistent organic toxins in the environment, persistent organic pollutants are carcinogenic and mutagenic. On the basis of this background information this experiment was designed to study the exposed impact of these petroleum wastes on the workers working in the automobile workshop. We collect fifty blood samples from different workers working in the automobile workshops of the Abbottabad city. At the same time we collected information about their physical health, duration of working, how long they working in this field and age of the worker. We run the samples on the PerkinElmer Clarus gas chromatography (GC-HP600) coupled with a mass spectrometer (MS-HP600C) EI source. In the result we found significant higher concentration of different petroleum fractions in the maximum workers. There were about 20 different organic compounds found in blood samples of workers that are toxic to human health. Among these pollutants major compounds that are present in workers blood were hexadecane, heptadecane, 2, 6, 10, 15-tetramethyl, pentadecane, 2, 6, 10-trimethyl, heptadecane, heneicosane, octadecane and eicosane. Among these significant higher concentration of heptadecane, 2, 6, 10, 15-tetramethyl and octadecane was found in the blood. Highest concentrations of these chemicals were found in the works having age forty year or above. Our results revealed that no proper application of safety rules in the automobile workshops cause serious threat to the health of the workers. These chemicals fractions are the major cause of cancer, kidney and liver infection in the workers.

**ID:** EPPH2017\_10014

**Paper Title:** Adsorption of Sulfamethoxazole on Nanoporous Carbon Derived from Metal-Organic Frameworks

**Name:** yuxin Li

**Affiliation:** Dalian University of Technology

**Email:** 291319846@qq.com

#### **Abstract**

Nanoporous carbon (NPC) with high surface area of 1379 m<sup>2</sup>/g and high proportion of micropore and mesopore volume of 2.90 cm<sup>3</sup>/g was prepared by carbonization of metal-organic frameworks ZIF-8. The adsorption of NPC towards the representative sulfonamide antibiotics sulfamethoxazole (SMX) from aqueous solutions was explored, in comparison with powder active carbon (AC). The adsorption kinetics and isotherms showed that the maximum adsorption capacity (q<sub>m</sub>) of NPC toward SMX was 757 mg/g, around 2 times than that of AC adsorption. The high adsorption affinity of NPC was related to the high surface area and special mic/mesopore structure. The pore-filling mechanism as well as electrostatic interaction had important influence on the high adsorption of NPC. The results implied that nanoporous carbon derived from MOFs could remove the contaminants from aqueous solutions effectively, and would be a promising adsorbent for the removal of contaminants in the future.

**ID:** EPPH2017\_10015

**Paper Title:** Fe-MOF derived Ferrous Hierarchically Porous Carbon used as EF Cathode for PFOA Degradation

**Name:** Xiaoyu Liu

**Affiliation:** Dalian University of Technology

**Email:** 1053195850@qq.com

#### **Abstract**

Pentadecafluorooctanoic acid (PFOA) is environmentally persistent, bioaccumulative, globally distributed and dangerous to human beings. thus, the degradation of PFOA with effective method remains further exploration. Here, an electro-Fenton (EF) system was studied for efficient PFOA degradation, and Where a new composite material ferrous hierarchically porous carbon (FHPC) prepared by high temperature activation of MIL-100 (Fe) was applied as the cathode, and 81.4% PFOA (Initial 50 mg/L) elimination was achieved at a low potential of -0.4 V (pH=7, 3 h). With the increasing of the activated temperature, the catalytic ability of the materials is decreasing because the reduced surface area reduced and the iron nanoparticles size enlarged. Moreover, the H<sub>2</sub>O<sub>2</sub> and the •OH were also detected to confirm the dominating

contribution of electro-Fenton mechanism in the PFOA degradation. Thus, this material could be used in efficient heterogeneous EF technology for PFOA elimination.

**ID:** EPPH2017\_10018

**Paper Title:** Fabrication and Photoelectrochemical Performance of Si Nanowire Photoelectrode Structured with Quantum Size Surface

**Name:** Shiyi Yu

**Affiliation:** School of Environmental Science and Technology, Dalian University of Technology, Dalian, China

**Email:** yuhongtao@dlut.edu.cn

#### **Abstract**

Silicon semiconductor material has strong competitive in photocatalytic, but it is unstable in moist environment and aqueous solution as oxidized to insulative silicon dioxide on the surface. After the second etch on Si nanowires, quantum dots and nanopores are formed on most part of the surface which can stabilize the Si nanowires efficiently, and the hierarchical Si etched for 3 minutes on the first etch shows the best performance. Cyclic voltammetry measurements under xenon lamp irradiation demonstrates the current decline proportion fall off from 34% to 1.8% after 20 cycles, and the photocurrent raise to 4 times comparing with the original smooth nanowires, meanwhile, absorbancy rises obviously.

**ID:** EPPH2017\_10021

**Paper Title:** Study of Performance of Modified Oyster Shell for Phosphorus Removal

**Name:** Huan Wang

**Affiliation:** Dalian University of Technology

**Email:** 1106560650@qq.com

#### **Abstract**

The oyster shell was modified through ferric salt and aluminum salt, and the performance of modified oyster shell for phosphorus removal was examined. Results indicated that the adsorption processes of phosphorus by modified oyster shell were in conformity with Langmuir

isothermal adsorption equation, while the relevant adsorption followed the second-order kinetic equation. The theoretical saturated adsorption capacity of the modified oyster shell was 20-30 mg P (PO<sub>4</sub><sup>3-</sup>)/g, which was 5-folds higher than that of original oyster shell. Analysis of KCl-NaOH-HCl sequential extraction showed that the phosphorus speciation in saturated adsorbents was in the form of Ca-bound P, Al-bound P or Fe-bound P. More than 90% of phosphorus was removed with modified oyster shell from artificial wastewater, whereas only 41% was removed with original oyster shell.

**ID:** EPPH2017\_10022

**Paper Title:** Concentration Response Functions for Air Pollution related Health Risk Assessment in South Korea

**Name:** Jongsik HA

**Affiliation:** Korea Environment Institute

**Email:** jsha@kei.re.kr

#### **Abstract**

Air Pollution related Health Risk Assessment (AP-HRA) is an important tool for measuring the health impacts of air pollution. AP-HRA is already being used widely as an important reference in making air pollution policies. However, the absence of standard Concentration Response Functions (CRFs) which is a main component for AP-HRA could cause confusion amongst policy-makers. The purpose of this study is to tabulate the national standard CRFs for AP-HRA in South Korea. This study suggested a national standard CRFs for AP-HRA thorough systematic literature review and meta-analysis. The literature review was limited to the English language for epidemiological studies published from January 1980 to March 2016. The meta-analysis was conducted in assuming both fixed- and random-effects of CRFs. In addition, studies that reported AP-HRA in WHO, EC, and EPA were reviewed to compare the CRFs of South Korea to the recommended CRFs of WHO, EC, or EPA. Thirty-six studies were selected for the available CRFs to South Korea. And ninety-three CRFs were derived for meta-analysis. Finally, this study suggested a national standard CRFs for AP-HRA, divided into the following four criteria: air pollution,

characteristic of exposure, the type of health impact, and age group. The importance of this study is that it is the first Korean CRFs standards for AP-HRA.

**ID:** EPPH2017\_10026

**Paper Title:** Study on Probability Estimation of Haze in Beijing Based Logistic Regression Model

**Name:** Zhang Tian

**Affiliation:** North China Electric Power University, School of Mathematics and Physics

**Email:** zhuyonghua@ncepu.cn

#### **Abstract**

The Logistic Regression Model of two categories is used to explore the relationship between haze and season, various meteorological factors such as air pressure, temperature, relative humidity, precipitation, wind direction and so on. Among all the factors, the relative humidity is best related to haze and season is in the second place. The odds of haze in winter is 17.87 times bigger than that in summer, 3.99 times bigger than that in spring. The odds of haze would increase by 48 percent averagely when the relative humidity increase by 10 percent.

**ID:** EPPH2017\_10023

**Paper Title:** Impact of Steel Industry on Local Environment and workers Health

**Name:** Ifra Yasmeen

**Affiliation:** COMSATS University

**Email:** ifrayasmeen395@yahoo.com

#### **Abstract**

This rapid industrialization is also having a direct and indirect adverse effect on our environment. Industrial development manifested due to setting up of new industries or expansion of existing industrial establishments resulted in the generation of industrial effluents, spatially small scale cottage industries which discharge untreated effluents which cause air, water, soil and soil solid waste pollution. The Hattar industrial estate is located at Haripur a district in Khyber Pakhtunkhwa (KPK) Province of Pakistan. On the basis of this

background information this experiment was designed to study the impact of steel mill waste and smoke on the workers' health as well as toxicant concentration in the water and soil of steel mill in Hattar industrial state. We collect the blood samples of nearly fifty workers of the steel mill as well as we collect soil and water samples of that industry. All the samples were analyzed for heavy metal analysis. According to the results we found significant high concentration of Pb, CU and Zn in the bloods samples of the workers followed by Mg, Ni and Fe. We also found that concentration of all the metals were significantly high from the WHO permissible limits. At the same time we also found higher concentration of these metals in soil and water samples of steel mills. We also found some skin issues, memory loss issues in the workers . From this research we concluded that due to lack of safety measures as well as no awareness cause serious problems health issues for the worker working in the industrial areas.

**ID:** EPPH2017\_10028

**Paper Title:** Impact of Steel Industry on Local Environment and workers Health

**Name:** Ying Li

**Affiliation:** East Tennessee State University

**Email:** liy005@etsu.edu

#### **Abstract**

Global climate change is anticipated to raise overall temperatures and is likely to increase future mortality attributable to heat. Urban areas are particularly vulnerable to heat because of high concentrations of susceptible people. As the world's largest developing country and the largest carbon emitter, China has experienced noticeable changes in climate, partially evidenced by frequent occurrence of extreme heat in urban areas, which could expose millions of residents to summer heat stress that may result in increased health risk, including mortality. While there is a growing literature on future impacts of extreme temperatures on public health, projecting changes in future health outcomes associated with climate warming remains challenging, with the related health impacts in developing countries largely unexplored. This is an exploratory study aimed at projecting future heat-related mortality risk in

major metropolitan areas in China. We focus on 50 large Chinese cities that cover about 1/3 of the total population in China, and propose to assess the potential changes in heat-related mortality under 19 different global-scale climate models and three Representative Concentration Pathways (RCPs) used in the latest Intergovernmental Panel on Climate Change Fifth Assessment Report (IPCC AR5). We project future changes in heat-related mortality in the 2050s and 2070s relative to the base period of 1950-2000. The projections are based on an integrated assessment framework that combines high-resolution climate model outputs, city-specific temperature-mortality relationships, population projections and baseline mortality rates. Future temperature changes in the study areas are estimated based on downscaled climate model outputs at a spatial resolution of about 1 square kilometer. City-specific historical temperature-mortality associations are obtained from the epidemiological literature. Population projections are based on the China census 2010 survey and projected population growth rates from the 2015 Revision of World Population Prospects by the United Nations. Baseline mortality rates are obtained from China's national and local health statistics publications. Our findings suggest that future heat mortality risk attributable to elevated warm season temperature is likely to be significant in China's urban areas, with substantial geographic variations, highlighting the significance of climate mitigation and local-level heat risk management.

**ID:** EPPH2017\_10011

**Paper Title:** POTENTIAL LEAD TOXICITY IN LOHI SHEEP GRAZING AROUND A SEWERAGE DRAIN IN JHANG, PAKISTAN

**Name:** M Younus Rana

**Affiliation:** University of Veterinary and Animal Sciences

**Email:** younusrana@hotmail.com

#### **Abstract**

Heavy metal toxicity is increasing day by day due to increasing trends of urbanization and industrialization in developing countries like Pakistan. The present study was aimed to unveil the status of lead and its hazardous effects on Lohi sheep (an indigenous mutton breed), in a selected

area of District Jhang, Punjab, Pakistan. This work was carried out to determine the Pb concentration in soil, forage, water and serum, and to correlate its effects with biochemical and hematological parameters in sheep grazing around sewerage drain. The Lohi sheep showed higher serum lead concentration above the permissible level without manifesting any apparent signs of illness. The lead concentration in soil, forage and waste water was ranging from 06.91-15.80 mg/kg, 1.61-4.65 mg/kg and 0.01-0.15 mg/L respectively which were found only to be safe for agriculture cultivation. The 92.22% sheep showed serum lead concentration above the recommended safe

limit of 0.35 mg/L and 18.88% of sheep possessed serum lead level above 2.00mg/L. The biochemical profiles, ESR and DLC showed statistically insignificant effect of lead toxicity in Lohi sheep. Whereas, erythrocytes count, Hb and PCV showed inverse correlation with lead concentration. This is the first study which correlates the concentration of a heavy metal (Pb) in natural environment and its dissemination to animal along with the cumulative effect on liver, kidney and blood parameters. The findings of this study suggest that the water, fodder and soil served as continuous source of lead accumulation in sheep which may pose serious health hazards for the consumers.

## Technical Session: Psychology

**ID:** CPPWb2017\_10004

**Paper Title:** Positive Well-being and Work–life Balance among UK Railway Staff

**Name:** Jialin Fan

**Affiliation:** Centre for Occupational and Health Psychology, School of Psychology, Cardiff University, Cardiff, United Kingdom

**Email:** FanJ12@Cardiff.ac.uk

### Abstract

Failure to manage the well-being and work–life balance of railway workers may result in an increased risk to train safety and employees' health. This article reports the findings of a study that measured positive well-being and work–life balance, and identified the factors affecting these among UK railway staff. On the whole, staff who perceived high levels of control and support had a better work–life balance and an increased sense of well-being. A positive personality was associated with positive well-being both at work and outside of work.

**ID:** CPPWb2017\_10010

**Paper Title:** The possible psychological mechanism of salient strength training by increasing positive emotion of college students

**Name:** Qianyun Sun

**Affiliation:** Wuxi Mental Health Center

**Email:** sunqianyun@hotmail.com

### Abstract

Positive psychology as a new psychological research field dates back to the late of 20th century in the United States. The main research of positive psychology is positive emotional experience and positive personality traits of human beings. It uses relatively mature and effective experiment and measurement methods to research into positive aspects such as human development potential and virtue. Currently, the most influential theory of positive emotion is the broaden-and-build theory proposed by Fredrickson. As one of the core research fields of positive psychology, character strengths is defined as positive traits reflected in such levels as the individual cognition, emotion, behavior etc. Salient strengths stand out among all the individual positive traits. This research choosing college students as subjects is divided into two parts. In the first part, a random selection of 280 students from a local vocational technology institute were asked to complete the Positive and Negative Scale questionnaires so as to do research on positive emotion of the current college students. In the second part, two classes made up of 36 freshmen each at this same institute were selected at random. A case-control study was employed, namely salient strengths training group and control group. The 2×2 mix model design aims to observe whether the positive emotion of the college student is improved as well as the function of dimensions of the broaden-and-build theory in the changes of the subjects' positive emotion. The



measuring instruments used in this research included Positive and Negative Scale compiled in 1998 by Watson D, Clark LA and Tellegen A to assess positive emotion and negative emotion of the subjects, a computer used to measure the classic stroop effect to evaluate the cognitive behavior instruction, Peer Relation Satisfaction Scale compiled by Wei Yunhua to evaluate the peer relation and Satisfaction With Life Scale compiled by Diener to evaluate the satisfaction of life of the subjects. Results of research reveal: (1) The result of a large scale of survey shows the current college students' positive emotions are generally lower than negative emotions. (2) After six weeks' salient strength training, the participants' after-test positive emotion score ( $M=33.86$ ) was significantly higher than the positive emotion before measurement ( $M=31.18$ ). There is a significantly difference between the salient strength training group and placebo group. (3) During the six weeks of training, the working point of positive emotion is the third week; and the working point of negative emotion is the sixth week. (4) As for the dimension of the broaden-and-build theory, the working point of the accuracy of the stroop effect is the second week; the working point of the reaction time of the stroop effect is the third week; the working point of peer relation is the sixth week; and the working point of the satisfaction of life is the fifth week. The main findings of this study are as follows: (1) At present college students' positive emotions are generally lower than negative emotions, so necessary training is needed to improve the college students' positive emotions. (2) After six weeks' salient strengths training, college students' positive emotions can be effectively increased. (3) After six weeks' salient strengths training, the dimensions of the broaden-and-build theory, including the accuracy and reaction time of the stroop effect, peer relation, satisfaction with life significantly improve. It means salient strengths training can effectively improve the cognitive behavior instruction, broaden the personal construct resources and elevate the satisfaction of life. (4) Salient strengths training increases positive emotion through peer relation as an intervening variable affects the final changes in positive emotion. This means salient strengths training can partly verified the model of the broaden-and-build theory.

**ID:** CPPWb2017\_10006

**Paper Title:** Achievement emotions and academic achievement of vocational students: How do they feel in learning and class-related situations?

**Name:** Lan Yang

**Affiliation:** Education University of Hong Kong

**Email:** yanglan@eduhk.hk

#### **Abstract**

This study aimed to extend recent advances in assessing achievement emotions in Western cultures (Pekrun, Goetz, Frenzel, Barchfeld, & Perry, 2011; Pekrun, Goetz, & Perry, 2005) to China. Specifically, China's vocational education has been selected as the research context, given the rapidly increasing number of academically less competent students and limited research on achievement emotions in the concerned context. The major purpose of this study was to develop the Chinese version of achievement emotions questionnaire (C-AEQ), seeking to know more about emotional well-being of this population of academically less competent students in vocational education. Given the length of the original AEQ (232 items, Pekrun et al., 2005) developed in three achievement situations (learning-, class-, and test-related), this study focused on testing the within- and between-network construct validity of the C-AEQ with original scales (155 items) in two important achievement settings (learning- and class-related). Moving forward, this study aimed to develop a short form of the C-AEQ (54 items) to assess academic emotions in learning- and class-related situations among Chinese vocational students. The within network validity was supported by a series of confirmatory factor analyses, in which Model 1 that differentiated the eight emotions (enjoyment, hope, pride, anxiety, boredom, anger, shame, hopelessness) in both learning- and class-related situations had better model fit indices than Model 2 that consisted only two general domains: positive and negative emotions. Correlation analysis showed positive correlations among positive emotions (enjoyment, hope, pride). Positive correlations were also found among negative emotions (anxiety, anger, hopelessness, boredom, shame). The two patterns are consistent in the two achievement situations (learning- and class-related). In

addition, significantly positive correlations were found between positive emotions (enjoyment, hope, pride) in class-related situation and those in learning-related situation. A similar pattern was found between negative emotions (anxiety, boredom, anger, shame, hopelessness) in the two achievement situations. To test the between-network validity, students' self-reported academic achievement across school subjects were used, the results showed that positive emotions (enjoyment, hope, pride) in both achievement situations (learning- and class-related) were significantly and positively correlated with academic achievement. Negative correlations were found between academic achievement and negative emotions (anxiety, anger, hopelessness, boredom, shame) in the two achievement situations. These correlational patterns were also consistent by using indicators of the short form of C-AEQ. To sum up, the results of the construct validity approaches from both within-network and between-network support the appropriateness of both the long- and the short-form Chinese version of the learning- and class-related AEQ in assessing relevant emotions in Chinese students. The short-form of the C-AEQ may be more suitable for future studies on examining the relationships between achievement emotions and other variables (e.g., control and value variables in the control-value model of achievement emotions) to avoid students' fatigue in filling long scales. The results are also discussed in relation to existing research on achievement emotions across cultures.

**ID:** HAAC2017\_10008

**Paper Title:** THE FRAMEWORK OF A NOVEL APPROACH FOR THE ANALYSIS OF HUMAN MOVEMENT FOR CLINICAL PURPOSES

**Name:** John Williams

**Affiliation:** UNC Wilmington

**Email:** jcw2463@uncw.edu

#### **Abstract**

THE FRAMEWORK OF A NOVEL APPROACH FOR THE ANALYSIS OF HUMAN MOVEMENT FOR CLINICAL PURPOSES

Mark E. Williams, MD 1,3

John C. C, Williams AB (chem) 2

(1) Clinical Professor of Medicine and Geriatrics, School of Medicine, University of North Carolina, Chapel Hill, North Carolina USA

(2) Senior Undergraduate Student, University of North Carolina at Wilmington

(3) Co-Founder, LifeGait, Inc.

Recent technological advances have led to the development of small wearable microelectronic sensors (accelerometers) that detect motion, gravitational acceleration, and velocity with six degrees of freedom (forward-backward, up-down, and side-to-side plus rotational vectors). We have used these motion sensors to create new analytical tools called biokinetographs (BKGs). BKGs allow for more precise screening, diagnosing, monitoring, assessment and predicting of function of elderly people as they ambulate using sophisticated analysis of the unique electronic motion signature of each person. Remarkable visual differences in "functional walking signatures" are evident on the BKGs between fallers and non-fallers. This presentation will summarize our current efforts to translate this new technology into novel clinical and research tools for improving function, reducing injurious falls, and diagnosing orthopedic and neurological conditions for elderly people.

**ID:** HAAC2017\_10013

**Paper Title:** To apply and to develop more smart systems/technologies and biomimetics in helping the advancing in healthy and active aging

**Name:** C. S. Chen

**Affiliation:** National Tsing Hua University

**Email:** cschen@mx.nthu.edu.tw

#### **Abstract**

The recent constantly increasing senior to youth/baby ratio worldwide has generated an increasingly heavier burden on elderly welfare in many countries. It is more pronounced in China on both sides of the Taiwan Strait. Healthy and active aging in making the elderly more independent are more appropriate approaches in treating the pressing issues. Healthy and active aging can further

encourage the elderly in making valuable contribution to our overall well-being

**ID:** HAAC2017\_10003

**Paper Title:** Biomedical and psychological factors influencing self-reported heart conditions in a British cohort

**Name:** Helen Cheng, Scott Montgomery, Andy Green, Adrian Furnham

**Affiliation:** University College London

**Email:** h.cheng@ucl.ac.uk

#### **Abstract**

**Objective:** To investigate factors associated with self-reported heart conditions in adulthood in a British cohort. **Method:** Over 5,000 participants with data on parental socioeconomic status, childhood cognitive ability, childhood heart problems, education and occupation, personality traits, and the prevalence of self-reported heart conditions were included in the study. **Results:** Logistic regression analysis showed that childhood heart problems identified by physicians and trait emotional stability were the significant and independent predictors of the self-reported heart conditions in adulthood. There were also significant sex effects on the prevalence of the outcome variable.

**ID:** PHC2017\_10001

**Paper Title:** Research on the relationship among phone addiction, social anxiety and loneliness in high school students

**Name:** Junlan Xu

**Affiliation:** the Sechond High School Attached to Beijing Normal University

**Email:** Xujl1@outlook.com

#### **Abstract**

Phone addiction causes significant social and psychological damage to people who excessively use of mobile phones. Rapid social rhythm, busy daily life, and complex interpersonal relationships make people, especially the student groups, increasing dependent on

mobile phones, and also gradually changed their communication behavior. This paper used the way of psychological empirical study to investigate 220 students of a Beijing high school through the Mobile Phone Addiction Index, Liebowitz Social Anxiety Scale and UCLA Loneliness Scale. The results showed that: (1) the ratio of phone addiction among phone users of high school students is about 17.95%, and it varies significantly from different school department; (2) there is no correlation between phone addiction and social anxiety; (3) there is a higher sense of loneliness in classmates who have phone addiction. It can be seen that in the modern society, mobile phone has become the main way of social communication, and it has little effect on social anxiety. Loneliness is one of the main reasons for phone addiction of high school students. Therefore, this paper suggests that in the prevention of high school students rely on the phone, the school need to take a way to limit the time of students using the phone; and strengthening the intimate relationship among school, family and students can help to reduce phone addiction by lowering the loneliness of students.

**ID:** PHC2017\_10005

**Paper Title:** The effect of study abroad experience on self-efficacy and private college stigma:socialisation degree as a moderator

**Name:** Wei Ling Cai

**Affiliation:** Yango College

**Email:** 26234781@qq.com

#### **Abstract**

Drawing from the activity theory perspective, this study has four objectives: first, to assess the effect of private college undergraduate student's study abroad experience on self-efficacy and private college stigma, respectively. Second, to test the mediating effect of undergraduate student's self-efficacy on the relationship between their study abroad experience and stigma. Finally, to explore the moderating effect of undergraduate student's socialisation degree on the relationship between their study abroad experience and self-efficacy. This research involved a survey, comprised

of questionnaires concerning study abroad experience from 500 undergraduates. Results indicated that undergraduate student's study abroad experience was positively related to focus on self-efficacy and negatively related to identity stigma as a private college student, respectively, and self-efficacy partially mediated the relationship between study abroad experience and private college stigma. Furthermore, socialisation degree moderates the relationship between study abroad experience and self-efficacy, such that the relationship is stronger when undergraduate student with the higher socialisation degree. Finally, the limitations of the research are discussed and suggestions for further research are proposed.

**ID:** PHC2017\_10006

**Paper Title:** HOW THE DISABILITY WOMEN LIVE?: a study socio-psychology

**Name:** Grace Mun Man Shum

**Affiliation:** University of Huelva

**Email:** grace@dpsi.uhu.es

#### **Abstract**

The results of this report are a part of a wider research whose aim is to study the living conditions on handicapped women. We are trying to find out if this handicap has a special incidence in the appearance of discrimination and violence against women. And all that starting from the idea that we work in special contexts where prejudices and stereotypes are the basic of discriminating and violent situations, which affect negatively the handicapped people. We have interviewed 75 women with physical handicaps in Andalucía, Galicia and Madrid, Spain. We make used objective and subjective indicators, as well in order to know how these characteristic women suffer, not only in

their social and to access a job, but also on the way, such as how they live on their identity, their self conception and self-love, etc. The discourses arisen from these interviews were grouped according to the function of those referred either to expressions of the different forms of discrimination or to the context of work.

**ID:** PHC2017\_10000

**Paper Title:** Factors of Adherence to Antiretroviral Therapy among HIV+ Patients in Guangxi, China

**Name:** Zhiwen Xiao

**Affiliation:** Valenti School of Communication University of Houston

**Email:** zxia2@Central.UH.EDU

#### **Abstract**

This study collected data from 2987 people living with HIV in China and employed logistic regression to examine the factors that predict medication adherence among these participants. A total of 2146 (72.1%) participants were receiving antiretroviral therapy (ART). And 1388 patients (64.7%) did not miss any medication dose. Marital status ((OR=1.60, 95% CI: (1.01-2.55)), duration of receiving ART ((OR=2.11, 95% CI: (1.19-3.73)), ever use of synthetic drugs ((OR=2.98, 95% CI: (1.61- 5.50)), medication-specific social support ((OR =1.45, 95% CI: (1.01-2.08)), some reasons for missing medication doses, including "busy with other things" (OR=3.13, 95% CI: (1.66-5.91), "Just forgot to take it" (OR=6.38, 95% CI: (2.77-14.71)), and "in a bad mood" (OR=4.54, 95% CI: (2.78-7.41)), were significant predictors of medication adherence among HIV-infected individuals who were receiving ART in Guangxi, China. Findings of the current study have practical implications for HIV treatment and interventions that focus on the factors associated with medication adherence.

# **Part V Instructions for Presentations**

## **Oral Presentation**

### **Devices Provided by the Conference Organizing Committee:**

- Laptops (with MS-office & Adobe Reader)
- Projectors & Screen
- Laser Sticks

### **Materials Provided by the Presenters:**

- PowerPoint or PDF files

### **Duration for each Presentation:**

- Regular Oral Session: 10-15 Minutes for each Presentation(5 minutes for Q&A)
- Invited Speech: 40-45 Minutes (5 minutes for Q&A)

## Part VI Hotel Information

### About Hotel

**Zhejiang Media Hotel (Hangzhou)** (浙江梅地亚宾馆) is an international four star standard hotel in Hangzhou. The hotel stands in the downtown business district in Hangzhou, 200 meters away from the famous West Lake. It is 13km from the airport and 3km from the railway station. The Media hotel is a 4 star facilities hotel with 200 rooms including standard double rooms, business rooms and suites, all equipped with a full range of facilities- IDD, DDD, color TV (with in room movies and some Satellite channel access) and central air-conditioning.

**Address:** 18, Changsheng Road (No. 203 Qingchun Lu), Hangzhou  
杭州市上城区长生路 18 号

**URL:** <http://www.zjmediahotel.com/about5.html>

**TEL:** 0571-87918888

**FAX:** 0571-87911233

**Email:** zj-media@163.com

### Transportation

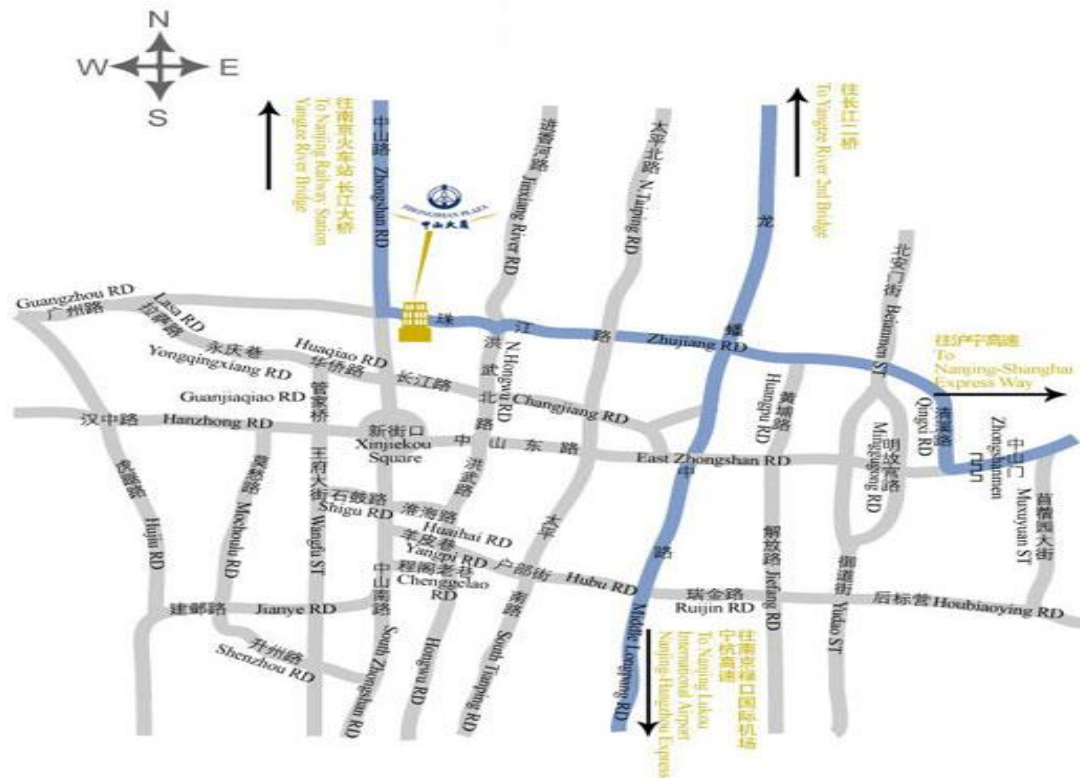
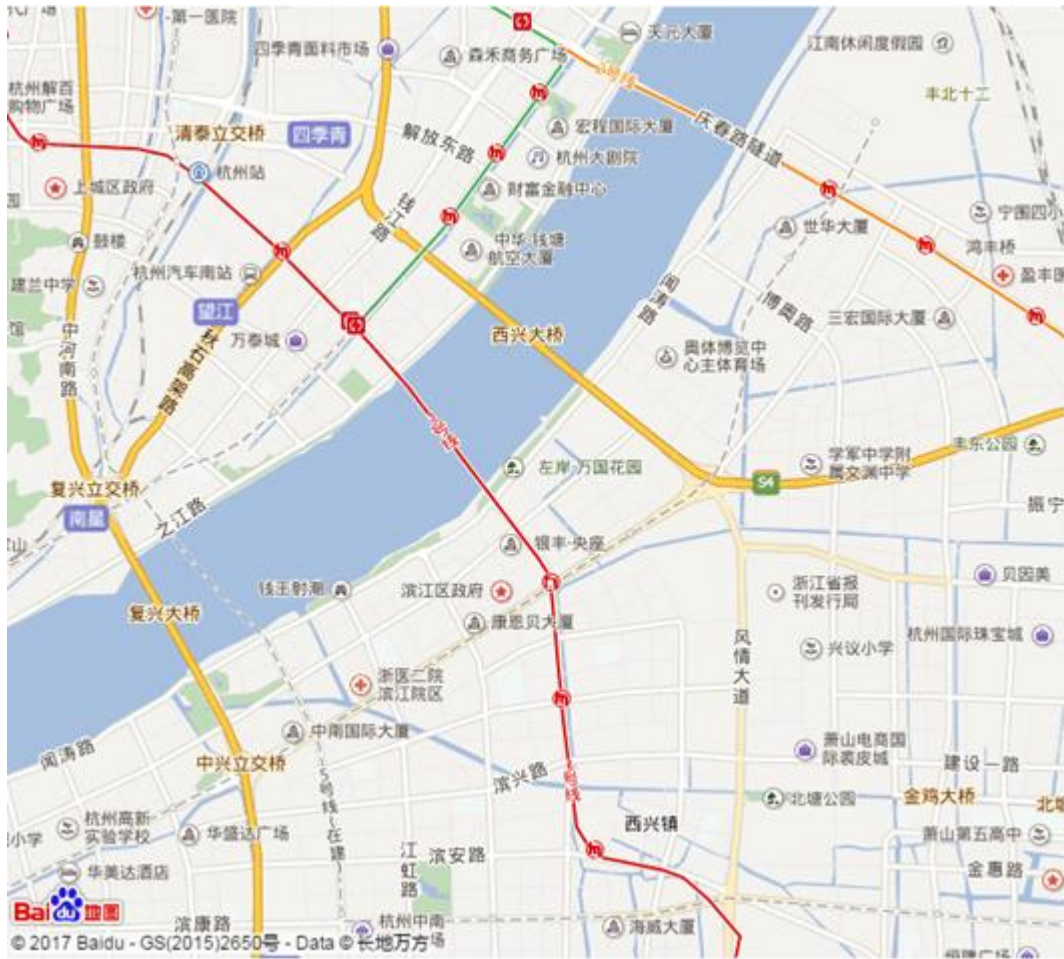
**Direct Bus Line:** No. 4, No. 230, No. 287, No. 290, No. 155

**Direct Subway Line:** Line No. 1 at Longxiangqiao Station(Exit A)

**Hangzhou International Airport:** Driving distance of 28.7 km (about 54 minutes)

**Hangzhou Railway Station:** Driving distance of 3.4 km (about 10 minutes)

**Hangzhou East Railway Station:** Driving distance of 7.9 km (about 25 minutes)



## Contact Us

**Conference Secretary:** Ms. Vivian, Ms Rolin

**Email:** [epph@engii.org](mailto:epph@engii.org), [hoac@engii.org](mailto:hoac@engii.org), [psy.feb@engii.org](mailto:psy.feb@engii.org)

**Tel:** +86 151 7247 9625

**QQ:** 11842358

**Wechat:** Engii\_hw