



## InterRidge workshop on “Hydrothermal Ore-forming Processes”

### Notice No.2

#### **Workshop Background**

The 1<sup>st</sup> international workshop organized by the InterRidge Working Group on Seafloor Massive Sulfides Resource along MOR is going to be held at Braim Canal Hotel between 19 and 22 September, 2019, at Hangzhou, China. The theme is “Hydrothermal ore-forming processes and the fate of SMS deposits along slow and ultraslow spreading MOR”. This workshop aims to understand several key scientific questions related to hydrothermal circulation mechanisms and the geological factors that contribute to the formation, distribution and preservation of SMS deposits along different spreading MOR. The Working Group hopes to capture the known/unknown BIG questions and identify future ways to address them through this workshop.

#### **About the Working Group**

The InterRidge Working Group on Seafloor Massive Sulfides Resource along Mid-Ocean Ridges was established on December 2018, with aims to enhance the cooperation among researchers working in this specific field, and collectively addresses challenges in understanding the nature of Seafloor Massive Sulfides. Find more about the WG at [http://interridge.org/WG\\_SMS\\_MOR](http://interridge.org/WG_SMS_MOR).

#### **Conference Information**

##### **1. Meeting Time and Venue**

Meeting Time: Sept. 19<sup>th</sup>, 2019 - Sept. 22<sup>nd</sup>, 2019 (Sept. 19<sup>th</sup> for registration full day)

Meeting Venue: Area A, International Hall, 3<sup>rd</sup> floor at Hangzhou Braim Canal Hotel.

Address: No. 58 Jinhua Road, Gongshu District, Hangzhou, China (Appendix 1).

##### **2. Conference Registration**

(1) Please fill in the registration form (Appendix 2) and send it to Long Liu (546776558@qq.com). Participants who had sent the confirmation email do not need to send this form again.

(2) Registration Fee: The registration fee is USD200 for regular participant and USD100 for students (student ID is required). The invited speakers and guests will have the fee waived, as well those who received a travel allowance.

(3) Time: September 19<sup>th</sup>, full day.

(4) Venue: First floor lobby of Hangzhou Braim Canal Hotel.

**Payment method:**

- a. Cash or credit card at the hotel, the receipt will be issued uniformly before the end of the workshop.
- b. Bank remittance:  
Recipient: Hangzhou Shanfu Exhibition Service Co., Ltd.  
Name of Bank: North Jianguo Road Branch of Industrial & Commercial Bank of China, Hangzhou, Zhejiang  
Bank Account: 1202022209900089473.  
After remittance, please send the information of remittance data, amount of remittance, name (list all the names if multi-remittance is done in once) and affiliation to Lei Han (468392828@qq.com, Tel: 13806508613).

**3. Conference Content**

This workshop consists of two parts: presentations and discussion. The presentation part consists of primary session, early career scientist session and posters. The discussion section consists of plenary and breakout discussions. See Appendix 3 for a detailed agenda.

**4. Accommodation**

The accommodation is recommend at the Braim Canal Hotel with price of ~60USD/night. Please contact Jia Wang ([1533208298@qq.com](mailto:1533208298@qq.com)) if you would like us to handle the room reservation before September 10<sup>th</sup>.

**5. Geological investigation around Hangzhou (optional).**

Time: September 22<sup>nd</sup>, full day.

Venue: Suichang Gold Mine National Mine Park , Suichang County, Lishui City, Zhejiang Province

Note: The geological field trip is a pay-item with price of USD60 and will be valid only when more than 10 persons registered. If you would like to participate, please send your request (name and affiliation) to Lei Han (468392828@qq.com, Tel : 13806508613) before September 5<sup>th</sup>.

**6. Contact Info**

Honglei Shen (Conference technical contact)

Email: [shlsmile@yeah.net](mailto:shlsmile@yeah.net)

Chunhua Gu (General arrangement of the conference)

Email address: [siogch@sio.org.cn](mailto:siogch@sio.org.cn)

Ziang Wang (Conference invitation)

E-mail: [zangwang@zju.edu.cn](mailto:zangwang@zju.edu.cn)

Long Liu (Conference registration)

E-mail: [546776558@qq.com](mailto:546776558@qq.com)

Jia Wang (Hotel reservation)

E-mail: [1533208298@qq.com](mailto:1533208298@qq.com)

Han Lei (Registration fee consult and invoice)

E-mail: [468392828@qq.com](mailto:468392828@qq.com)

Jie Zhu (Conference support)

Email: [hzsfly@sina.com](mailto:hzsfly@sina.com)

**We are sincerely looking forward to your  
participation!**

## Appendix 1 Workshop venue and transportation info

Hotel: Hangzhou Braim Canal Hotel

Address: No. 58 Jinhua Road, Gongshu District, Hangzhou, China

### 1. Hangzhou Xiaoshan Airport to Braim Canal Hotel:

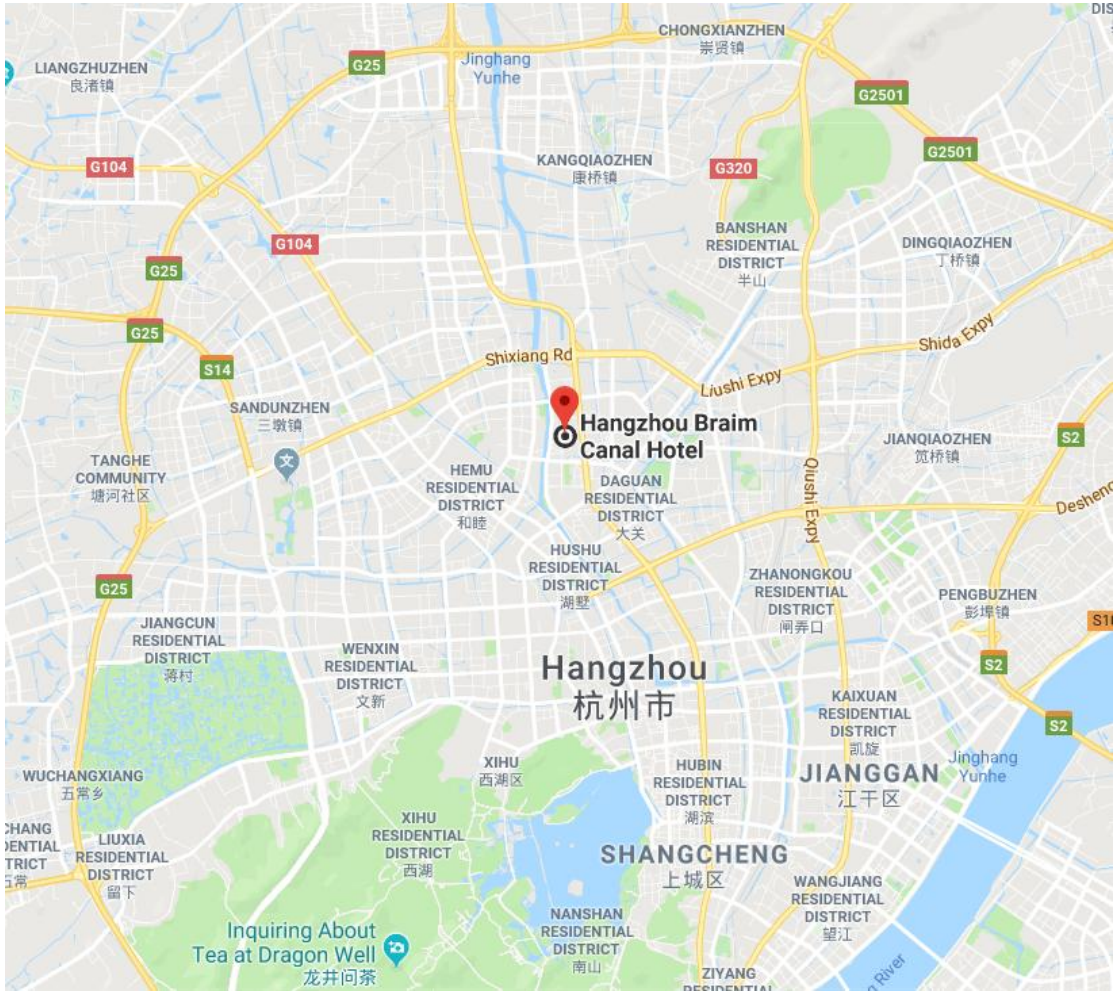
From Hangzhou Xiaoshan Airport to Braim Canal Hotel, it takes around 50 minutes by taxi in normal traffic condition (36km, ~USD18);

### 2. Hangzhou East Railway Station to Braim Canal Hotel:

From Hangzhou East Railway Station to Braim Canal Hotel, it takes around 31 minutes by taxi in normal traffic condition (11km, ~USD5);

### 3. Hangzhou Railway Station to Braim Canal Hotel:

From Hangzhou Railway Station to Braim Canal Hotel, it takes around 30 minutes by taxi in normal traffic condition (10km, ~USD5);



## Appendix 2 Registration form

Affiliation				
Contact address				
Name	Gender	Title	Email	Arrival and departure date

Please send this form and the **copy of your passport** to Long Liu ([546776558@qq.com](mailto:546776558@qq.com)).

## Appendix 3 Agenda (tentatively)

September 19 Thursday 1 <sup>st</sup> floor lobby of Hangzhou Braim Canal Hotel. 9月19日 周四 百瑞运河大饭店1楼接待大厅	
<b>06:00-24:00</b>	Register full day   全天注册
<b>18:00-20:00</b>	Dinner   晚餐
September 20 (Day 1) Friday Area A, International Hall, 3rd floor at Braim Canal Hotel 9月20日 (第一天) 周五 百瑞运河大饭店3楼国际厅A区	
<b>09:00-09:30</b>	Opening remarks   开幕式
<b>Primary Session   主题报告</b> Session Chair   主席: <b>Maurice Tivey</b>	
<b>09:30-09:50</b> (20 min)	Geological mapping of mid-ocean ridges and its implications and use for the prediction of SMS occurrences <b>Sven Petersen</b> GEOMAR, Germany (德国亥姆霍兹基尔海洋研究中心)
<b>09:50-10:10</b> (20 min)	An integrated assessment extinct Seafloor Massive Sulphide deposits at the TAG hydrothermal Field <b>Bramley Murton</b> National Oceanography Center, UK (英国国家海洋中心)
<b>10:10-10:30</b> (20 min)	Oceanic Core Complexes and the substrate for formation seafloor hydrothermal sulphide deposits <b>Henry J.B. Dick</b> Woods Hole Oceanographic Institution, USA. (美国伍兹霍尔海洋研究所)
<b>10:30-11:00</b>	Group Photo and Coffee/Tea Break   拍摄集体照片及休息
<b>11:00-11:20</b> (20 min)	The inactive hydrothermal vent fields in the Central Indian Ridge between 8°S and 18°S, Indian Ocean <b>Sang-Joon Pak</b> Korea Institute of Ocean Science and Technology, South Korea (韩国海洋科学技术研究所)
<b>11:20-11:40</b> (20 min)	Hull-mounted multibeam echosounder (MBSE): a cost and time-effective tool for detection of extinct seafloor massive sulfide deposits <b>Ewan Pelleter</b> Ifremer, Unité Géosciences Marines - Marine Geosciences Department, France (法国海洋开发研究院海底地球科学部)
<b>11:40-12:00</b> (20 min)	Deep high-temperature hydrothermal circulation in a detachment faulting system on the ultra-slow spreading Southwest Indian Ridge

	<b>Chunhui Tao (陶春辉)</b> KLSG, MNR, China. (自然资源部第二海洋研究所海底科学重点实验室)
<b>12:00-14:00</b>	Lunch & Break   午餐
<b>14:00-14:20</b> (20 min)	All SMS deposits are hydrothermal deposits, but not all hydrothermal deposits are SMS deposits <b>John Jamieson</b> Memorial University, Canada (加拿大纽芬兰纪念大学)
<b>14:20-14:40</b> (20 min)	Extreme hydrothermal activity on Carlsberg Ridge during the last glacial stage: evidence from an off-axis sediment core <b>Xiqiu Han (韩喜球)</b> Key Laboratory of Submarine Geosciences, Second Institute of Oceanography, MNR, Hangzhou, China. (自然资源部海底科学重点实验室)
<b>14:40-15:00</b> (20 min)	Finding, mapping and evaluating seafloor mining prospects <b>Isobel Yeo</b> Kingston University London, UK (英国伦敦金斯顿大学)
<b>15:00-15:20</b> (20 min)	Submarine hydrothermal fields without water column anomalies: methodological challenges for the discovery of new deposits <b>Agata Dias</b> University of Saint Joseph, Macao SAR, China (澳门圣约瑟大学)
<b>15:20-15:40</b> (20 min)	Morphology and formation of SMS deposits in different geological settings <b>Georgy Cherkashov</b> Institute for Geology and Mineral Resources of the Ocean, Russia (俄罗斯海洋地质矿产研究所)
<b>15:40-16:00</b>	Coffee/Tea Break   休息
<b>16:00-16:30</b>	Big question breakout sessions – 1 <sup>st</sup> round 分组讨论
<b>16:30-17:00</b>	Big question breakout sessions – 2 <sup>nd</sup> round 分组讨论
<b>17:00-17:30</b>	Plenary report from breakout group leaders   小组总结汇报
<b>18:00-20:00</b>	Dinner   晚餐
September 21 (Day 2) Saturday Area A, International Hall, 3rd floor at Braim Canal Hotel 9月21日 (第二天) 周六 百瑞运河大饭店3楼国际厅A区	
<b>Early Career Scientist Session   年轻科学家报告</b>	
Session Chair 主席: <b>Georgy Cherkashov</b>	
<b>09:00-09:15</b> (15 min)	Lucky Strike: is it a TAG (Trans-Atlantic Geotraverse) precursory hydrothermal system?



	<p><b>Isabel Costa</b> Center for Innovation in Science and Technology (INCITE), Instituto Politécnico Setúbal, Escola Superior Tecnologia Barreiro, Barreiro, Portugal (葡萄牙巴雷罗高等技术学院塞图巴尔理工学院科技创新中心)</p>
<p><b>09:15-09:30</b> (15 min)</p>	<p>3D Seismic Imaging and Potential Massive Sulfides Deposits of Geolin Mounds Hydrothermal Field in the Southern Okinawa Trough <b>Ho Han Hsu (许鹤瀚)</b> Institute of Oceanography, National Taiwan University, Taiwan, China (国立台湾大学海洋研究所)</p>
<p><b>09:30-09:45</b> (15 min)</p>	<p>Sulfide mineralization of the Saldanha hydrothermal field (MAR): constraints from sulfur isotope in-situ microanalysis <b>Wenhong Johnson Qiu (邱文洪)</b> Institute of Science and Environment (ISE), University of Saint Joseph, Macao SAR, China (澳门圣约瑟大学科学与环境研究所)</p>
<p><b>09:45-10:00</b> (15 min)</p>	<p>Ultramafic rocks hosting sulfide mineralization along SWIR: insights from the sulfide sulfur isotopic and LA-ICP-MS trace-element compositions <b>Teng Ding (丁腾)</b> Institute of Marine Geology, College of Oceanography, Hohai University, China (河海大学海洋学院海洋地质研究所)</p>
<p><b>10:00-10:45</b></p>	<p>Coffee/Tea Break &amp; Poster Session   休息及海报展示</p>
<p><b>10:45-11:00</b> (15 min)</p>	<p>Au and Te Minerals in Seafloor Massive Sulphides from Semyenov-2 Hydrothermal Field, Mid-Atlantic Ridge <b>Firstova Anna</b> Institute for Geology and Mineral Resources of the Ocean, Russia (俄罗斯海洋地质矿产研究所)</p>
<p><b>11:00-11:15</b> (15 min)</p>	<p>Difference in hydrothermal activity between slow and fast spreading centers <b>Duo Zhou (周多)</b> Zhejiang University, China (浙江大学)</p>
<p><b>11:15-11:30</b> (15 min)</p>	<p>Multi-stage detachment faulting controls hydrothermal activity in the Dragon Horn area (49.7°E, SWIR): Insight from magnetic studies <b>Tao Wu (吴涛)</b> Key Laboratory of Submarine Geosciences, Second Institute of Oceanography, MNR, Hangzhou, China. (自然资源部第二海洋研究所海底科学重点实验室)</p>
<p><b>11:30-11:45</b> (15 min)</p>	<p>Numerical simulation of hydrothermal plumes in stratified crossflows <b>Yingzhong Lou (楼映中)</b> Institute of Port, Coastal, and Offshore Engineering, Ocean College, Zhejiang University, China (浙江大学海洋学院港口海岸与近海工程研究所)</p>
<p><b>12:00-14:00</b></p>	<p>Lunch &amp; Break   午餐</p>

<b>14:00-14:30</b> (30 min)	Best oral/poster presentation awarding   最佳口头及海报展示奖
<b>14:30-15:30</b> (60 min)	Brainstorm the way to go for big questions and international cooperation   集体讨论及国际合作
<b>15:30-15:50</b>	Coffee/Tea Break   休息
<b>15:50-16:50</b> (60 min)	Workshop output summary   研讨会成果总结
<b>16:50-17:30</b> (40 min)	Working Group internal round-table conference   工作组圆桌会议
<b>18:00-20:00</b>	Dinner   晚餐
September 22 (Day 3) Sunday    Geological investigation around Hangzhou (optional). 9月22日 (第三天) 周天    杭州周边地质调查 (可选)。	
<b>07:00-21:00</b>	Geological field trip around Hangzhou 杭州周边地质考察

**Note: Poster Size is 90 cm (width) x 120 cm (height).**