

## 2023 International Conference on Surface Science Technology and Application (ICSSTA 2023) Conference Notice

**Chongqing, China June 16-June 19, 2023**

**Conference Theme:** *Focusing on new technologies in the field of surface science and promoting deeply integrated global development*

Surface Science and Technology, as an interdisciplinary and comprehensive technology, mainly focuses on the study of various phenomena and processes occurring on the surface and interface at the atomic or molecular level. It has involved many basic and applied disciplines, including physics, chemistry, mathematics, material science, biology and engineering, and is one of the most active frontier disciplines in the world at present. It has now laid the foundation of technology development in modern industry.

To further solve the scientific problems related to surface and interface and promote the widely application of surface technology so as to serve for social development and breakthroughs, scientist at home and abroad make every efforts to be innovate constantly, and have obtained great and remarkable achievements.

Therefore, Southwest Institute of Technology and Engineering China South Industries Group Co., Ltd., Beijing University of Technology, Chongqing Research Institute of HIT, Zhengzhou University and some other domestic institutions, colleges and universities organize 2023 International Conference on Surface Science Technology and Application (ICSSTA 2023), which will be held in Chongqing, China on 16<sup>th</sup> - 19<sup>th</sup> of June with the theme of *Focusing on new technologies in the field of surface science and promoting deeply integrated global development*. Academicians from the Chinese Academy of Engineering, Chinese Academy of Sciences and the European Academy of Sciences as well as well-known experts and scholars at home and abroad will give keynote presentations, and scholars and industry leaders at home and abroad will be invited to have extensive and in-depth exchanges and discussions on the latest research results and industry trends in the field of surface science and technology, so as to promote the high-quality development of surface science and technology. We cordially welcome relevant workers at home and abroad to participate in the conference and submit articles.

Southwest Institute of Technology and Engineering  
China South Industries Group Co., Ltd.  
March 28, 2023

## Conference Organizers

### 1. Co organizer (in random order):

Southwest Technology and Engineering Research Institute  
Beijing University of Technology  
Chongqing Research Institute of Harbin Institute of Technology  
Zhengzhou University  
Air Force Engineering University  
Tianjin University of Technology and Education  
Southwest University of Science and Technology  
Shaanxi University of Science & Technology  
Southwest Jiaotong University  
Anhui University of Technology  
Shenyang University of Technology  
Southwest Petroleum University  
Chongqing University of Science and Technology  
Lanzhou Institute of Chemical Physics  
Luoyang Ship Material Research Institute  
Lanzhou Institute of Physics, CAST  
AVIC Manufacturing Technology Institute  
National Engineering Research Center for Magnesium Alloys  
State Centre for International Cooperation on Designer Low-Carbon & Environmental Materials  
Engineering Research Center of Oilfield Chemistry, Ministry of Education  
Science and Technology on Plasma Dynamics Laboratory  
Key Laboratory of Green Fabrication and Surface Technology of Advanced Metal Materials, Ministry of Education  
Liaoning Key Laboratory of Advanced Welding Technology and Automation  
Oil & Gas Field Applied Chemistry Key Laboratory of Sichuan Province  
Chongqing Society for Corrosion and Protection  
Chongqing Society of Surface Engineering Technology  
Chongqing Hongzhixin Information Technology Co., Ltd

### 2. Support media:

*Journal of Magnesium and Alloys* (SCI)  
*Coatings* (SCI)  
*Surface science and technology*  
*Surface Technology* (EI)  
*Equipment Environment Engineering*  
*"Science, Industry, Innovation, and Sharing" Official Account*

### 3. Advisers (surnames arranged in alphabetical order):

Xuedong Chen	Yufeng Cheng	Shengkai Gong	Dongming Guo
Baorong Hou	Lin Li	Yinghong Li	Yaping Luo

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Xinping Mao	Fusheng Pan	Shigang Sun	Qunji Xue
Tongyi Zhang	Lian Zhou	Kesong Zhou	

**4. Chairman:**

Fusheng Pan

**5. Executive Chairman:**

Hulin Wu

**6. Vice Chairman (surnames arranged in alphabetical order):**

Yanchun He	Junhua Hu	Jianfeng Huang	Zhongsheng Li
Mingxian Sun	Fuhui Wang	Xiaohong Wu	Rongshi Xiao
Bing Yan	Jiixin Yu	Yuansong Zeng	Shihong Zhang
Feng Zhou	Xiong Zhou		

**7. Academic Committee:****Domestic Academic member (surnames arranged in alphabetical order):**

Yulong An	Lei Bi	Caiyong Cai	Meirong Cai
Wei Cai	Yujun Cai	Zhenbing Cai	Guoqin Cao
Maosheng Cao	Chuanzhong Chen	Fengjun Chen	Hui Chen
Jianmin Chen	Lei Chen(Lanzhou Institute of Physics)	Lei Chen(Southwest Jiaotong University)	Shougang Chen
Suiyuan Chen	Wanglin Chen	Wenge Chen	Yan Chen
Chenglin Chu	Dalong Cong	Dehui Deng	Wenfeng Ding
Guangneng Dong	Hui Dong	Shiyun Dong	Min Du
Shiguo Du	Xiaodong Du	Jizhou Duan	Xiaoqiang Fan
Xueling Fan	Liang Fang	Fengzhou Fang	Aixin Feng
Yudong Feng	Anqing Fu	Guofu Gao	Hang Gao
Yan Gao	Yukui Gao	Zhengyuan Gao	Zhenghao Ge
Shuili Gong	Taijiang Gui	Feng Guo	Hongbo Guo
Xingpeng Guo	Bin Han	Xiuqing Hao	Yanchun He
Yi He	Yunbin He	Dingyong He	Jiming Hu
Songqing Hu	Wenbin Hu	Wanwei Huang	Wei Huang
Xiaozhong Huang	Yi Huang	Weixin Huang	Junhong Jia
Bingfeng Ju	Pengfei Ju	Jiajie Kang	Renke Kang
Wei Lan	Hong Lei	Yongxiang Leng	Chen Li
Chengming Li	Guolu Li	Hongxuan Li	Liuhe Li
Wenge Li	Yaxin Xu	Yang Li	Changjiu Li

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Zhonghua Li	Zhuguo Li	Yong Lian	Yuanhua Lin
Fangyang Liu	Guangming Liu	Jie Liu	Jinlong Liu
Min Liu	Qibin Liu	Xiubo Liu	Yahua Liu
Ying Liu	Zhanqiang Liu	Zhiyong Liu	Songtao Lu
Xiaopeng Lu	Feng Lu	Hong Luo	Yanlong Ma
Shengqiang Ma	Yin Ma	Zhanji Ma	Yaohua Mai
Xuesong Mei	Jiliang Mo	Houjun Qi	Faxiang Qin
Ming Qiu	Fengzhang Ren	Zhongcai Shao	Yizhou Shen
Wentian Shi	Cijun Shuai	Guangling Song	Haojie Song
Yingwei Song	Deen Sun	Hui Sun	Lidong Sun
Yuwen Sun	Jinyuan Tang	Junlei Tang	Libo Tong
Aiying Wang	Dihua Wang	Huaiyuan Wang	Chengbing Wang
Gang Wang	Jihui Wang	Jingfeng Wang	Qiang Wang
Qinying Wang	Tiegang Wang	Xiaofeng Wang	Xiaolei Wang
Xinhua Wang	Xuanping Wang	Yaming Wang	Zuankai Wang
Qiuping Wei	Zhaojun Wu	Duoli Wu	Jianhua Wu
Liang Wu	Chongjun Wu	Liankui Wu	Dingding Xiang
Guijian Xiao	Rongshi Xiao	Guoqing Xiao	Zhihui Xie
Yuqing Xiong	Shichao Xiu	Dake Xu	Jinyang Xu
Daokui Xu	Likun Xu	Wenbin Xue	Yujun Xue
Bin Yang	Jin Yang	Qingxiang Yang	Shengqiang Yang
Xiaokui Yang	Jianhua Yao	Shaohui Yin	Mei Yu
Guangyin Yuan	Julong Yuan	Weifeng Yuan	Wen Yue
Rongchang Zeng	Bin Zhang	Chenhui Zhang	Dawei Zhang
Daquan Zhang	Dingfei Zhang	Guangan Zhang	Jianhua Zhang
Jin Zhang	Junyan Zhang	Qunli Zhang	Ruiqian Zhang
Shengmao Zhang	Tao Zhang	Tiancai Zhang	Zhenyu Zhang
Zhiqiang Zhang	Zhonghua Zhang	Bo Zhao	Fangchao Zhao
Jibin Zhao	Jingmao Zhao	Quanzhong Zhao	Yugui Zheng
Li Zhong	Qingdong Zhong	Xiankang Zhong	Huidi Zhou
Jianzhong Zhou	Ping Zhou	Xiying Zhou	Yefei Zhou
Yong Zhou	Jiaqi Zhu	Liqun Zhu	Minhao Zhu
Dunwen Zuo			

**International Academic member (surnames arranged in alphabetical order):**

Guijun Bi	Xiaobo Chen	Xun Chen	Zhong Chen
Jiangtao Cheng	Bo Gu	Ram K. Gupta	Dongfeng He
Anming Hu	Zhirong Liao	Xuqing Liu	Hanlin Liao
Quanshun Luo	Shuaihang Pan	Xuejun Ren	Andreas Rosenkranz
J. Paulo Davim	Philippe Refait	Jing Shi	Yijun SHI
Liming SHU	Byon Eung-Sun	Xinwei Wang	Ronghua Wei
Cuie Wen	Ying Yang	Haitao Ye	Yongfeng Lu
Shuo Yin	Jianqiang Zhang	Lidong Zhao	Jinming Zhou
Mikhail Zheludkevich			

**8. Organizational Committee (surnames arranged in alphabetical order):**

Meirong Cai	Shengzhu Cao	Xianlong Cao	Wei Chen
Guangjun Chen	Liangyu Cui	Qingwei Dai	Xingguo Feng
Yingchun Guan	Liang Guo	Nairu He	Yang Hong
Jian Hou	Guoliang Hou	Gaofeng Hu	Ting Huang
Lixia Huo	Li Ji	Quantong Jiang	Gang Jin
Hongjun Kang	Rui Ke	Guoqiang Li	Xue Liu
Yan Liu	Yang Liu	Jiangyou Long	Sihai Luo
Xiangfan Nie	Houjun Qi	Liyong Qiao	Jing Shi
Jianbo Sun	Hu Wang	Qinying Wang	Tiegang Wang
Yingying Wang	Guoke Wei	Peigang Xu	Jianfeng Yan
Jie Yang	Jin Yang	Lijun Yang	Wenhui Yao
Yuan Yao	Zongxue Yu	Qunli Zhang	You Zhang
Ge Zhou	Liucheng Zhou	Xiaojiao Zuo	

## Theme Forum

**Forum I. Advanced Laser Surface Processing and Manufacturing**

**Presidents:**

Ting Huang, Beijing University of Technology  
Yingchun Guan, Beihang University  
Qunli Zhang, Zhejiang University of Technology

**Conveners:**

Rongshi Xiao, Beijing University of Technology  
Ting Huang, Beijing University of Technology  
Shikun Zou, AVIC Manufacturing Technology Institute

**Host:**

Beijing University of Technology

**Topics:**

- 1) Laser surface strengthening
- 2) Laser cleaning and polishing
- 3) Laser material deposition
- 4) Laser manufacturing on functional surface
- 5) Laser composite manufacturing on surface
- 6) Other techniques related to laser manufacturing
- 7) Mechanism on the interaction between laser and materials

**Forum II. Special Functional Coatings and Technology**

**President:**

Xiaohong Wu, Harbin Institute of Technology

**Convener:**

Songtao Lu, Harbin Institute of Technology

Tiancai Zhang, Southwest Technology and Engineering Research Institute

**Host:**

Chongqing Research Institute of HIT

**Topics:**

- 1) Thermal control coating and technology
- 2) Radiation-resistant coating and technology
- 3) Atomic oxygen protective coating and technology
- 4) High-temperature insulation coating and technology
- 5) Stealth coating and technology
- 6) Other special functional coatings and technologies

**Forum III. Advanced Thermal Spray Process and its Application in Engineering**

**Presidents:**

Tongzhou Chen, Wuhan Research Institute of Materials Protection

Tianying Xiong, Institute of Metal Research, Chinese Academy of Sciences

**Conveners:**

Guanjun Yang, Xi'an Jiaotong University

Shihong Zhang, Anhui University of Technology

Nannan Zhang, Shenyang University of Technology

Dalong Cong, Southwest Technology and Engineering Research Institute

**Hosts:**

Anhui University of Technology

Shenyang University of Technology

Key Laboratory of Green Fabrication and Surface Technology of Advanced Metal Materials,  
Ministry of Education

Key Laboratory of Advanced Welding Technology and Automation of Liaoning Province

**Topics:**

- 1) Design and manufacturing of advanced ceramic coating
- 2) Process and application of metal ceramic composite coating
- 3) Design and manufacturing of new alloy coating
- 4) Manufacturing of composite functional coating and advanced applications

**Forum IV: Precision and Ultra-precision Machining of Surface**

**President:**

Bing Yan, Tianjin University of Technology and Education

**Conveners:**

Houjun Qi, Tianjin University of Technology and Education

Tiegang Wang, Tianjin University of Technology and Education

**Host:**

Tianjin University of Technology and Education

**Topics:**

- 1) Precision machining and blade tools
- 2) Ultra precision grinding and equipment
- 3) Surface integrity and measurement
- 4) Precision ultrasonic-assisted machining and equipment
- 5) Precision surface finish machining
- 6) Grinding and polishing and relevant techniques

**Forum V: Functional Surface Structure of Biomaterials and Biomimetic Materials and its Design**

**President:**

Jiixin Yu, Southwest University of Science and Technology

**Conveners:**

Guoqiang Li, Southwest University of Science and Technology

Moyuan Cao, Nankai University

**Host:**

Southwest University of Science and Technology

**Topics:**

- 1) Biological surface behavior
- 2) Characterization of biological surface materials

- 3) Design of biomimetic surface materials
- 4) Biomimetic surface engineering
- 5) Surfaces and interfaces

### **Forum VI: Corrosion and Surface Engineering of Metal Materials in Energy System**

#### **Presidents:**

Junlei Tang, Southwest Petroleum University  
Liang Wu, Chongqing University

#### **Conveners:**

Lei Chen, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences  
Xiaoqiang Fan, Southwest Jiaotong University  
Xiaopeng Lu, Northeastern University  
Zihui Xie, China West Normal University  
Xiankang Zhong, Southwest Petroleum University

#### **Hosts:**

Southwest Petroleum University  
National Engineering Research Center for Magnesium Alloys  
Engineering Research Center of Oilfield Chemistry, Ministry of Education  
Oil & Gas Field Applied Chemistry Key Laboratory of Sichuan Province

#### **Topics:**

- 1) Surface protection under extreme serve conditions in oil & gas field
- 2) Surface engineering of metal material used in new energy and its deterioration mechanism
- 3) Corrosion mechanism of metal material used in hydrogen energy and its surface protection
- 4) Surface engineering of light metal materials

### **Forum VII: Friction, wear and lubrication of surface and interface**

#### **Presidents:**

Jianmin Chen, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences  
Junhong Jia, Shaanxi University of Science & Technology  
Hongxuan Li, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences

#### **Conveners:**

Junhong Jia, Shaanxi University of Science & Technology  
Li Ji, Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences

#### **Hosts:**

Shaanxi University of Science & Technology  
Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences

#### **Topics:**

- 1) Friction and wear in surface engineering
- 2) Tribology of coating under special serve conditions

- 3) Lubricating materials and tribochemistry
- 4) Tribology of thin film and micro/nano surface
- 5) Tribology of biological biomimetic surface
- 6) Industrial tribology and sealing surface technology

### **Forum VIII: Study on micro/nano-structure and surface film**

#### **President:**

Pengjun Cao, Chongqing University of Science and Technology

#### **Conveners:**

Wei Cai, Chongqing University of Science and Technology

Dengming, Chen, Chongqing University of Science and Technology

#### **Host:**

Chongqing University of Science and Technology

#### **Topics:**

- 1) Properties of micro/nano-structure and surface
- 2) Study of preparation and performance of functional film
- 3) Plating and conversion film

### **Forum IX: Surface modification by plasma**

#### **President:**

Weifeng He, Air Force Engineering University

#### **Convener:**

Weifeng He, Air Force Engineering University

#### **Hosts:**

Air Force Engineering University

Science and Technology on Plasma Dynamics Laboratory

#### **Topics:**

- 1) Reciprocity of plasma and materials and monitoring
- 2) Surface strengthening/modification of plasma
- 3) Coating and cladding of plasma
- 4) Etching/rinsing of plasma materials

### **Forum X: Nuclear materials and surface engineering**

#### **Presidents:**

Zhenbing Cai, Southwest Jiaotong University

Junhua Hu, Zhengzhou University

#### **Convener:**

Zhenbing Cai, Southwest Jiaotong University

Junhua Hu, Zhengzhou University

#### **Hosts:**

Zhengzhou University

Southwest Jiaotong University

National Center for International Research of Intelligent Design of Low-carbon Environmental  
Friendly Materials

**Topics:**

- 1) Surface structure design of new fuel
- 2) Behavior and environment damage of nuclear materials
- 3) Coating surface protection of accident tolerant fuel
- 4) Corrosion test on supercritical water material
- 5) Study on the design of nuclear power radiation protection
- 6) Coating and surface strengthening of nuclear materials
- 7) Application of surface engineering in the area of nuclear

## Language

Chinese and English, simultaneous interpretation available

## Paper

1. Scope: including but not limited to the topics discussed in academic forums.
2. Format: abstract or full text.
3. Instructions for authors:

(1) Authors are invited to submit original scientific abstract in English for oral or poster presentation (download the template [here.doc](#)); (2) the content of paper shall not be delivered or published by other publications; (3) the paper shall be novel, scientific and practical; (4) the data and conclusion shall be dependable; (5) the moral rules for publication shall be followed; (6) no national secret shall be involved (for contribution from organization engaged in national defense, aerospace or military affairs, proof of non-confidentiality is required); and (7) the paper shall be saved as a Word document named as “author’s name + organization + serial number of theme forum”. In case of any oral presentation or poster, please write it down.

4. Publication:

1) All accepted abstracts and papers, after peer-review, will be included in conference proceedings, which will not be published in any form (including online) but for conference exchange only;

2) This session of conference is in collaboration with IOP (Institute of Physics) Publishing. Based on author's intention and revisions, after peer-review by IOP, selected full papers will be published in conference proceedings on IOP's Journal of Physics: Conference Series (JPCS), and sent for in indexation in Ei Compendex, Scopus, etc. Authors intend to contribute to IOP are required to submit the full papers in English in strict accordance with the template attached, and with the remark “Submission to IOP”.

3) Authors of accepted papers will receive a Certificate of Acceptance issued by Organizing Committee.

4) At least one author of accepted papers is required to attend the conference.

5. How and when to submit:

You are required to log in the “Submission System” on <https://icssta2023.scimeeting.cn> for submission.

Please submit your article before May 22, 2023.

6. For other information, please refer to AnnexI *Instructions for Authors*.

## Timetable

**Timetable:** June 16, 2023 -Registration;

June 17, 2023 -Keynote Reports

June 18, 2023 -Reports on Academic Forum and Industry Forum

June 19, 2023 -Closing &Evacuation

**Location:** Grand Metropark Hotel Chongqing

**Accommodation:** Grand Metropark Hotel Chongqing

Double-bed room: RMB 400/room One-bed room: RMB 400/room

**Address:** No. 1598 Jinkai Avenue, Yubei District, Chongqing

**Registration:** Please log in <https://icssta2023.scimeeting.cn> for registration, payment and hotel reservation.

Registration Type		In-person		Virtual
		Early Registration (Before 2023-05-22)	Regular Registration	
Regular Registration	Attending Only	CNY 2400	CNY 2700	CNY 1400
	Attending + Submit only to Conference Proceedings	CNY 2400	CNY 2700	CNY 1400
	Attending + Submit only to IOP	CNY 3400	CNY 3700	CNY 2400
Student Registration	Attending Only	CNY 1700	CNY 2000	CNY 700
	Attending + Submit only to Conference Proceedings	CNY 1700	CNY 2000	CNY 700
	Attending + Submit only to IOP	CNY 2700	CNY 3000	CNY 1700

**Note:**

1. An APC (Article Processing Charge) of CNY 1000 is included in the conference fee listed in “Attending +Present with IOP Publication”, and no further fees will be charged. The APC will be refunded in case of rejection due to lack of manuscript quality.

2. Chongqing Hongzhixin Information Technology Co., Ltd. Is the unique authorized party for charging registration fee of ICSSTA 2023, and shall be responsible for invoicing with the title “Conference Registration Fee”

## Important Dates

Date of Conference: from June 16 to June 19, 2023

Deadline for Contribution: May 22, 2023

Deadline for Online Registration: June 13, 2023

Registration Date of Conference: June 16, 2023

## Contacts

Person in Charge: Linsheng Hu +86 15823219738

Contribution to Conference:

Lang Zou +86 18512865935

Conference Registration and Hotel Reservation:

Xiao Wang +86 17783251550

Tel.: 023-68792193

Email: wjqkbm@163.com

## Annex I

### 2023 International Conference on Surface Science Technology and Application Instructions for Authors

The 2023 International Conference on Surface Science Technology and Application will be held in Chongqing, China from 16<sup>th</sup> June to 19<sup>th</sup> June in 2023 on the theme of *Focusing on new technologies in the field of surface science and promoting deeply integrated global development*. Your contributions are welcomed

#### 1. Scope: including but not limited to the topics discussed in academic forums.

Parallel Forum	Scope
Forum I. Advanced Laser Surface Processing and Manufacturing	<ol style="list-style-type: none"> <li>1) Laser surface strengthening</li> <li>2) Laser cleaning and polishing</li> <li>3) Laser material deposition</li> <li>4) Laser manufacturing on functional surface</li> <li>5) Laser composite manufacturing on surface</li> <li>6) Other techniques related to laser manufacturing</li> <li>7) Mechanism on the interaction between laser and materials</li> </ol>
Forum II. Special Functional Coatings and Technology	<ol style="list-style-type: none"> <li>1) Thermal control coating and technology</li> <li>2) Radiation-resistant coating and technology</li> <li>3) Atomic oxygen protective coating and technology</li> <li>4) High-temperature insulation coating and technology</li> <li>5) Stealth coating and technology</li> <li>6) Other special functional coatings and technologies</li> </ol>
Forum III. Advanced Thermal Spray Process and its Application in Engineering	<ol style="list-style-type: none"> <li>1) Design and manufacturing of advanced ceramic coating</li> <li>2) Process and application of metal ceramic composite coating</li> <li>3) Design and manufacturing of new alloy coating</li> <li>4) Manufacturing of composite functional coating and advanced applications</li> </ol>
Forum IV: Precision and Ultra-precision Machining of Surface	<ol style="list-style-type: none"> <li>1) Precision machining and blade tools</li> <li>2) Ultra precision grinding and equipment</li> <li>3) Surface integrity and measurement</li> <li>4) Precision ultrasonic-assisted machining and equipment</li> <li>5) Precision surface finish machining</li> <li>6) Grinding and polishing and relevant techniques</li> </ol>
Forum V: Functional Surface Structure of Biomaterials and Biomimetic Materials and its Design	<ol style="list-style-type: none"> <li>1) Biological surface behavior</li> <li>2) Characterization of biological surface materials</li> <li>3) Design of biomimetic surface materials</li> <li>4) Biomimetic surface engineering</li> <li>5) Surfaces and interfaces</li> </ol>

2023 International Conference on Surface Science Technology and Application (ICSSTA 2023)

Forum VI: Corrosion and Surface Engineering of Metal Materials in Energy System	<ol style="list-style-type: none"> <li>1) Surface protection under extreme serve conditions in oil &amp; gas field</li> <li>2) Surface engineering of metal material used in new energy and its deterioration mechanism</li> <li>3) Corrosion mechanism of metal material used in hydrogen energy and its surface protection</li> <li>4) Surface engineering of light metal materials</li> </ol>
Forum VII: Friction, wear and lubrication of surface and interface	<ol style="list-style-type: none"> <li>1) Friction and wear in surface engineering</li> <li>2) Tribology of coating under special serve conditions</li> <li>3) Lubricating materials and tribochemistry</li> <li>4) Tribology of thin film and micro/nano surface</li> <li>5) Tribology of biological biomimetic surface</li> <li>6) Industrial tribology and sealing surface technology</li> </ol>
Forum VIII: Study on micro/nano-structure and surface film	<ol style="list-style-type: none"> <li>1) Properties of micro/nano-structure and surface</li> <li>2) Study of preparation and performance of functional film</li> <li>3) Plating and conversion film</li> </ol>
Forum IX: Surface modification by plasma	<ol style="list-style-type: none"> <li>1) Reciprocity of plasma and materials and monitoring</li> <li>2) Surface strengthening/modification of plasma</li> <li>3) Coating and cladding of plasma</li> <li>4) Etching/rinsing of plasma materials</li> </ol>
Forum X: Nuclear materials and surface engineering	<ol style="list-style-type: none"> <li>1) Surface structure design of new fuel</li> <li>2) Behavior and environment damage of nuclear materials</li> <li>3) Coating surface protection of accident tolerant fuel</li> <li>4) Corrosion test on supercritical water material</li> <li>5) Study on the design of nuclear power radiation protection</li> <li>6) Coating and surface strengthening of nuclear materials</li> <li>7) Application of surface engineering in the area of nuclear</li> </ol>

## 2. Requirements

- 1) Your article can be delivered either as an abstract or in full text;
- 2) You may submit your article in English, which will not be returned, please leave your own draft;
- 3) The content of article shall not be delivered or published by other publications;
- 4) The article shall be novel, scientific and practical. The data and conclusion shall be dependable. The moral rules for publication shall be followed. No national secret shall be involved (for contribution from organization engaged in national defense, aerospace or military affairs, proof of non-confidentiality is required);
- 5) The article shall be saved as a Word document named as “author’s name + organization +

serial number of parallel forum”. In case of any oral presentation or poster, please write it down; and

6) For more details, please refer to the template (Papers submitted to IOP must be written in full English according to the template requirements).

### **3. How and when to submit**

You are required to log in the “Submission System” on <https://icssta2023.scimeeting.cn> for submission.

Please submit your article before May 22, 2023.

### **4. Publication**

1) All accepted abstracts and papers, after peer-review, will be included in conference proceedings, which will not be published in any form (including online) but for conference exchange only;

2) This session of conference is in collaboration with IOP (Institute of Physics) Publishing. Based on author's intention and revisions, after peer-review by IOP, selected full papers will be published in conference proceedings on IOP's Journal of Physics: Conference Series (JPCS), and sent for in indexation in Ei Compendex, Scopus, etc. Authors intend to contribute to IOP are required to submit the full papers in English in strict accordance with the template attached, and with the remark “Submission to IOP”.

3) Authors of accepted papers will receive a Certificate of Acceptance issued by Organizing Committee.

4) At least one author of accepted papers is required to attend the conference.

### **5. Appraisal for Outstanding Papers**

Outstanding Papers Award will be established for young people aged 35 and below, including 20 Outstanding Presentation Awards and 10 Outstanding Exhibition Awards. Prizes and certificates will be awarded to the winners.

### **6. Contacts**

Contact for submission: Lang Zou

Tel.:+86-18512865935/023-68792193

E-mail: [wjqkbn@163.com](mailto:wjqkbn@163.com)

**IOP Submission Template:**

## Layout guide for *Journal of Physics: Conference Series* using Microsoft Word

**Abstract.** All articles *must* contain an abstract. The abstract text should be formatted using 10 point Times or Times New Roman and indented 25 mm from the left margin. Leave 10 mm space after the abstract before you begin the main text of your article, starting on the same page as the abstract. The abstract should give readers concise information about the content of the article and indicate the main results obtained and conclusions drawn. The abstract is not part of the text and should be complete in itself; no table numbers, figure numbers, references or displayed mathematical expressions should be included. It should be suitable for direct inclusion in abstracting services and should not normally exceed 200 words in a single paragraph. Since contemporary information-retrieval systems rely heavily on the content of titles and abstracts to identify relevant articles in literature searches, great care should be taken in constructing both.

### 1. Introduction

These guidelines, written in the style of a submission to *J. Phys.: Conf. Ser.*, show the best layout for your paper using Microsoft Word. If you don't wish to use the Word template provided, please use the following page setup measurements.

Margin	A4 ONLY – DO NOT USE US LETTER
Top	4.0 cm
Bottom	2.7 cm
Left	2.5 cm
Right	2.5 cm
Gutter	0 cm
Header	0 cm
Footer	0 cm

It is *vital* that you **do not add any headers, footers or page numbers to your paper**; these will be added during the production process at IOP Publishing (this is why the Header and Footer margins are set to 0 cm in table 1).

### 2. Formatting the title, authors and affiliations

Please follow these instructions as carefully as possible so all articles within a conference have the same style to the title page. This paragraph follows a section title so it should not be indented.

#### 2.1. Formatting the title

The title is set 17 point Times Bold, flush left, unjustified. The first letter of the title should be capitalized with the rest in lower case. It should not be indented. Leave 28 mm of space above the title and 10 mm after the title.

#### 2.2. Formatting author names

The list of authors should be indented 25 mm to match the abstract. The style for the names is initials then surname, with a comma after all but the last two names, which are separated by 'and'. Initials should not have

full stops—for example **A J Smith** and *not* **A. J. Smith**. First names in full may be used if desired. If an author has additional information to appear as a footnote, such as a permanent address or to indicate that they are the corresponding author, the footnote should be entered after the surname.

### 2.3. Formatting author affiliations

Please ensure that affiliations are as full and complete as possible and include the country. The addresses of the authors' affiliations follow the list of authors and should also be indented 25 mm to match the abstract. If the authors are at different addresses, numbered superscripts should be used after each surname to reference an author to his/her address. The numbered superscripts should *not* be inserted using Word's footnote command because this will place the reference in the wrong place—at the bottom of the page (or end of the document) rather than next to the address. Ensure that any numbered superscripts used to link author names and addresses start at 1 and continue on to the number of affiliations. Do not add any footnotes until all the author names are linked to the addresses. For example, to format

**J Mucklow<sup>1,3</sup>, J E Thomas<sup>1,4</sup> and A J Cox<sup>2,5</sup>**

where there are three addresses, you should insert numbered superscripts 1, 2 and 3 to link surnames to addresses and then insert *footnotes* 4 and 5. Note that the first footnote in the main text will now be number 6.

**2.3.1. An example.** In this example we can see that there are footnotes after each author name and only 5 addresses; the 6th footnote might say, for example, 'Author to whom any correspondence should be addressed.' In addition, acknowledgment of grants or funding, temporary addresses etc might also be indicated by footnotes.

## Spin dynamics in geometrically frustrated antiferromagnetic pyrochlores

**J S Gardner<sup>1,2,6</sup>, G Ehlers<sup>3</sup>, S T Bramwell<sup>4</sup> and B D Gaulin<sup>5</sup>**

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<sup>4</sup> Department of Chemistry, University College London, 20 Gordon Street, London WC1H 0AJ, UK

<sup>5</sup> Department of Physics and Astronomy, Canadian Institute for Advanced Research, McMaster University, Hamilton, ON, L8S 4M1, Canada

### 3. Formatting the text

The text of your paper should be formatted as follows:

- 11 point Times or Times New Roman.
- The text should be set to single line spacing.
- Paragraphs should be justified.
- The first paragraph after a section or subsection heading should not be indented; subsequent paragraphs should be indented by 5 mm.

### 4. Sections, subsections and subsubsections

The use of sections to divide the text of the paper is optional and left as a decision for the author. Where the author wishes to divide the paper into sections the formatting shown in table 2 should be used.

#### 4.1. Style and spacing

**Table 2.** Formatting sections, subsections and subsubsections.

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	Font	Spacing
Section	11 point <b>Times bold</b>	1 line space before a section No additional space after a section heading
Subsection	11 point <i>Times Italic</i>	1 line space before a subsection No space after a subsection heading
Subsubsection	11 point <i>Times Italic</i>	Subsubsections should end with a full stop (period) and run into the text of the paragraph

---

#### 4.2. Numbering

Sections should be numbered with a dot following the number and then separated by a single space:

- sections should be numbered 1, 2, 3, etc
- subsections should be numbered 2.1, 2.2, 2.3, etc
- subsubsections should be numbered 2.3.1, 2.3.2, etc

#### 5. Footnotes

Footnotes should be avoided whenever possible. If required they should be used only for brief notes that do not fit conveniently into the text.

#### 6. Figures

Each figure should have a brief caption describing it and, if necessary, a key to interpret the various lines and symbols on the figure.

##### 6.1. Space considerations

Authors should try to make economical use of the space on the page; for example:

- avoid excessively large white space borders *around* your graphics;
- try to design illustrations that make good use of the available space—avoid unnecessarily large amounts of white space *within* the graphic;

##### 6.2. Text in figures

Wherever possible try to ensure that the size of the text in your figures (apart from superscripts/subscripts) is approximately the same size as the main text (11 points).

##### 6.3. Line thickness

In general, try to avoid extremely fine lines (often called ‘hairline’ thickness) because such lines often do not reproduce well when printed out—your diagrams may lose vital information when downloaded and printed by other researchers. Try to ensure that lines are no thinner than 0.25 pt. Note that some illustrations may reduce line thickness when the graphic is imported and reduced in size (scaled down) inside Microsoft Word.

##### 6.4. Colour illustrations

You are free to use colour illustrations for the online version of *Journal of Physics: Conference Series* but any print version will only be printed in black and white **unless special arrangements have been made with your conference organizer for colour printing. Please check with the conference organizer whether or not this is the case.** If any print version will be black and white only, you should check your figure captions carefully and remove any reference to colour in the illustration and text. In addition, some colour figures will degrade or suffer loss of information when converted to black and white and this should be taken into account when preparing them.

##### 6.5. Positioning figures

2023 International Conference on Surface Science Technology and Application (ICSSTA 2023)

Individual figures should normally be centred but place two figures side-by-side if they will fit comfortably like this as it saves space. Place the figure as close as possible after the point where it is first referenced in the text. If there are a large number of figures it might be necessary to place some before their text citation. Figures should never appear within or after the reference list.

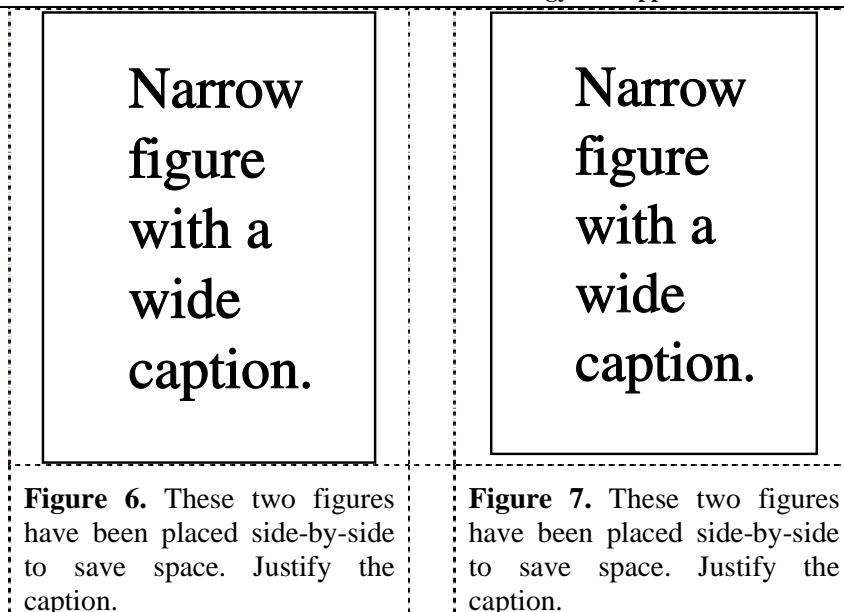
6.6. Figure captions/numbering

Captions should be below the figure and separated from it by a distance of 6 points—although to save space it is acceptable to put the caption next to the figure. Figures should be numbered sequentially through the text—‘Figure 1’, ‘Figure 2’ and so forth and should be referenced in the text as ‘figure 1’, ‘figure 2’,... and not ‘fig. 1’, ‘fig. 2’, ....

For captions not placed at the side of the figure, captions should be set to the width of the figure for wider figures, centred across the width of the figure, or, for narrow figures with wide captions, slightly extended beyond the width of the figure. The caption should finish with a full stop (period).

6.6.1. Examples. The following examples show how to format a number of different figure/caption combinations. Note that the table borders are shown as broken lines for guidance only.

<p><b>Wider figure/short caption</b></p>	
<p><b>Figure 3.</b> Figure with short caption (caption centred).</p>	
<p><b>Narrow figure with a wide caption.</b></p>	<p><b>Figure 4.</b> This is a figure with a caption that is wider than the actual graphic. To save space you can put the caption to the right of the figure by placing the graphic and justified caption in a table with one row and two columns.</p>
<p><b>Wider figure/wider caption</b></p>	
<p><b>Figure 5.</b> In this case simply justify the caption so that it is as the same width as the graphic.</p>	



### 6.7. Figures in parts

If a figure has parts these should be labelled as (a), (b), (c) etc on the actual figure. Parts should not have separate captions.

## 7. Tables

Note that as a general principle, for large tables font sizes can be reduced to make the table fit on a page or fit to the width of the text.

### 7.1. Positioning tables

Tables should be centred unless they occupy the full width of the text.

### 7.2. Tables in parts

If a table is divided into parts these should be labelled (a), (b), (c) etc but there should only be one caption for the whole table, not separate ones for each part.

### 7.3. Table captions/numbering

Tables should be numbered sequentially throughout the text and referred to in the text by number (table 1, **not** tab. 1 etc). Captions should be placed at the top of the table and should have a full stop (period) at the end. Except for very narrow tables with a wide caption (see examples below) the caption should be the same width as the table.

### 7.4. Rules in tables

Tables should have only horizontal rules and no vertical ones. Generally, only three rules should be used: one at the top of the table, one at the bottom, and one to separate the entries from the column headings. Table rules should be 0.5 points wide.

### 7.5. Examples

Because tables can take many forms, it is difficult to provide detailed guidelines; however, the following examples demonstrate our preferred styles.

**Table 3.** A simple table. Place the caption above the table. Here the caption is wider than the table so we extend it slightly outside the width of the table. Justify

the text. Leave 6 pt of space between the caption and the top of the table.

Distance (m)	Velocity (ms <sup>-1</sup> )
100	23.56
150	34.64
200	23.76
250	27.9

7.5.1. *More complex tables.* The following is a slightly more complex table with a caption that is narrower than the table. Centre the caption across the width of the table. If it is difficult to make a table fit the page, use a smaller font. Headings should normally be in Roman (i.e., not bold or italic) type, have an initial capital and normally align left (but centred sometimes looks better); it is up to the author to choose a layout that is most useful to the reader. Columns of numbers normally align on the decimal point.

**Table 4.A** slightly more complex table with a narrow caption.

	Wake Chi Sqr. (N=15, df=1)	<i>p</i>	Stage 1 Chi Sqr. (N=15, df=1)	<i>p</i>	Stage 2 Chi Sqr. (N=15, df=1)	<i>p</i>
<b>F3</b>	1.143	0.285	0.286	0.593	0.286	0.593
<b>Fz</b>	1.143	0.285	0.067	0.796	0.067	0.796
<b>C4</b>	2.571	0.109	0.600	0.439	1.667	0.197

**Table 5.** A slightly more complex table with a caption that is the same width as the table. Simply place the caption inside a row at the top of the table and merge (combine) the cells together so that you have a single table cell the width of the table. Justify the caption.

	Wake Chi Sqr. (N=15, df=1)	<i>p</i>	Stage 1 Chi Sqr. (N=15, df=1)	<i>p</i>	Stage 2 Chi Sqr. (N=15, df=1)	<i>p</i>
<b>F3</b>	1.143	0.285	0.286	0.593	0.286	0.593
<b>Fz</b>	1.143	0.285	0.067	0.796	0.067	0.796
<b>Cz</b>	1.143	0.285	0.077	0.782	0.286	0.593

### 7.6. Notes to tables

If you wish to format a table so that it contains notes (table footnotes) to the entries within the body of the table and/or within the table caption, these notes should be formatted using alphabetic superscripts such as <sup>a</sup>, <sup>b</sup>, <sup>c</sup> and so forth. Notes within the table caption should be listed first. Notes should be placed at the bottom of the table; one convenient method is to create an empty row at the bottom of the table to contain them. Again, merge the cells to give you a single cell the width of the table. Table notes should be 10 point Times Roman. Each note should be on a separate line.

**Table 6.** A table with headings spanning two columns and containing notes<sup>a</sup>.

Nucleus	Thickness (mg cm <sup>-2</sup> )	Composition	Separation energies	
			□, n (MeV)	□, 2n (MeV)
<sup>181</sup> Ta	19.3±0.1 <sup>b</sup>	Natural	7.6	14.2
<sup>208</sup> Pb	3.8±0.8 <sup>c</sup>	99% enriched	7.4	14.1
<sup>209</sup> Bi	2.6±0.01 <sup>c</sup>	Natural	7.5	14.4

<sup>a</sup>Notes are referenced using alpha superscripts.

<sup>b</sup>Self-supporting.

<sup>c</sup>Deposited over Al backing.

## 8. Equations and mathematics

### 8.1. Fonts in Equation Editor (or MathType)

Make sure that your Equation Editor or MathType fonts, including sizes, are set up to match the text of your document.

### 8.2. Points of style

8.2.1. *Vectors. Bold italic characters is our preferred style but the author may use any standard notation; for example, any of these styles for vectors is acceptable:*

‘the vector cross product of ***a*** and ***b*** is given by  ***$\mathbf{a} \times \mathbf{b}$*** ...’, or

‘the vector cross product of ***a*** and ***b*** is given by  ***$\mathbf{a} \times \mathbf{b}$*** ...’, or

‘the vector cross product of  $\vec{a}$  and  $\vec{b}$  is given by  $\vec{a} \times \vec{b}$ ...’.

8.2.2. *The solidus (? ?). A two-line solidus should be avoided where possible; for example, use*

- $\frac{1}{M_a} \left( \int_0^\infty d\omega \frac{|S_0|^2}{N} \right)^{-1}$  instead of  $\frac{1}{M_a} / \int_0^\infty d\omega \frac{|S_0|^2}{N}$
- $\left( \frac{x^2 + y^2}{x + y} \right)^{1/2}$  instead of  $\sqrt{\left( \frac{x^2 + y^2}{x + y} \right)}$ .

8.2.3. *Roman and italic in mathematics. Variables should be in italic; however there are some cases where it is better to use a Roman font:*

- Use a Roman d for a differential d, for example,  $\tan \theta = dy/dx$ .
- Use a Roman e for an exponential e; for example,  $y = e^x$ .
- Use a Roman i for the square root of -1; e.g.,  $i = \sqrt{-1}$ .
- Certain other common mathematical functions, such as cos, sin, det and ker, should appear in Roman type.
- Subscripts and superscripts should be in Roman type if they are labels rather than variables or characters that take values. For example in the equation

$$\varepsilon_m = -g\mu_n Bm$$

*m*, the zcomponent of the nuclear spin, is italic because it can have different values whereas *n* is Roman because it is a label meaning nuclear.

### 8.3. Alignment of mathematics

The preferred style for displayed mathematics in *Journal of Physics: Conference Series* is to centre equations; however, long equations that will not fit on one line, or need to be continued on subsequent lines, should start flush left. Any continuation lines in such equations should be indented by 25 mm.

Equations should be split at mathematically sound points, often immediately before =, + or - signs or between terms multiplied together. The connecting signs are not repeated and appear only at the beginning of the turned-over line. A multiplication sign should be added to the start of turned-over lines where the break is between two multiplied terms.

8.3.1. *Small displayed equations: Some examples:*

$$\phi_k(\vec{r}) = (2\pi)^{2/3} \exp(i\vec{k} \cdot \vec{r}) \quad (1)$$

$$A^{(3/2)} = A^{(+)} - A^{(-)} \quad (I = \frac{3}{2}) \quad (2)$$

However, if equations will fit on one line, do so; for example, (5) may also be formatted as:

$$C(12) = [\bar{\pi}(x) \cdot \bar{\phi}(x+r)] \approx 1 - \text{const} \frac{r^2}{L^2} \int_r^L \frac{xdx}{x^2} + \dots \approx 1 - \text{const} \frac{r^2}{L^2} \ln\left(\frac{L}{r}\right) + \dots \quad (6)$$

8.3.2. *Large display equations: examples.* If an equation is almost the width of a line, place it flush left against the margin to allow room for the equation number.

$$Y(h\nu) = \frac{1}{q} \frac{(h\nu)^2}{[(h\nu_r)^2 - (h\nu)^2]^2 + (\hbar\Delta\omega_{1/2})^2 (h\nu)^2} \int_{E_r - E_v - \Delta\phi}^{\infty} \frac{[E + (E_v - h\nu)]^{1/2}}{[E + (E_v - E_-)]^{1/2}} \frac{E}{\exp[(E - E_m)/kT] + 1} dE \quad (7)$$

#### 8.4. Miscellaneous points

- Exponential expressions, especially those containing subscripts or superscripts, are clearer if the notation  $\exp(\dots)$  is used, except for simple examples. For instance,  $\exp[i(kx - \omega t)]$  and  $\exp(z^2)$  are preferred to  $e^{i(kx - \omega t)}$  and  $e^z$ , but  $e^z$  is acceptable. Similarly the square root sign  $\sqrt{\quad}$  should only be used with relatively simple expressions, e.g.  $\sqrt{2}$  and  $\sqrt{a^2 + b^2}$ , but in other cases the power  $1/2$  should be used.
- It is important to distinguish between  $\ln = \log_e$  and  $\lg = \log_{10}$ .
- Braces, brackets and parentheses should be used in the following order:  $\{\{[\ ]\}\}$ . The same ordering of brackets should be used within each size. However, this ordering can be ignored if the brackets have a special meaning (e.g. if they denote an average or a function).
- Decimal fractions should always be preceded by a zero: for example 0.123 *not* .123 (note, do not use commas, use the decimal point).
- Equations that are referred to in the text should be numbered with the number on the right-hand side.

#### 8.5. Equation numbering

Equations may be numbered sequentially throughout the text (i.e., (1), (2), (3),...) or numbered by section (i.e., (1.1), (1.2), (2.1), ...) depending on the author's personal preference. In articles with several appendices equation numbering by section is useful in the appendices even when sequential numbering has been used throughout the main body of the text: for example, A.1, A.2 and so forth. When referring to an equation in the text, always put the equation number in brackets—e.g. 'as in equation (2)' or 'as in equation (2.1)'—and always spell out the word 'equation' in full, e.g. 'if equation (5) is factorized'; do not use abbreviations such as 'eqn.' or 'eq.'.

### 9. Appendices

Technical detail that it is necessary to include, but that interrupts the flow of the article, may be consigned to an appendix. Any appendices should be included at the end of the main text of the paper, after the acknowledgments section (if any) but before the reference list. If there are two or more appendices they should be called appendix A, appendix B, etc. Numbered equations should be in the form (A.1), (A.2), etc, figures should appear as figure A1, figure B1, etc and tables as table A1, table B1, etc.

### 10. References

As part of the production system for *Journal of Physics: Conference Series*, online versions of all reference lists will, wherever possible, be linked electronically using CrossRef. **It is vitally important for all the references to be accurate and to be carefully formatted using the guidelines below, otherwise delays may be incurred and the references may not link through CrossRef.**

A complete reference should provide the reader with enough information to locate the article concerned, whether published in print or electronic form, and should, depending on the type of reference, consist of:

- name(s) and initials;
- date published;

- title of journal, book or other publication;
- titles of journal articles may also be included (optional);
- volume number;
- editors, if any;
- town of publication and publisher in parentheses for *books*;
- the page numbers.

For *Journal of Physics: Conference Series*, please use the Vancouver numerical system where references are numbered sequentially throughout the text. The numbers occur within square brackets, like this [2], and one number can be used to designate several references. The reference list gives the references in numerical, not alphabetical, order.

#### Points to note

- There should be a 5 mm gap between the reference number (e.g., '[8]') and the start of the reference text. Second and subsequent lines of individual references should be indented by 5 mm. For example:

[1] Aderhold J, Davydov V Yu, Fedler F, Klausning H, Mistele D, Rotter T, Semchinova O, Stemmer J and Graul J 2001 *J. Cryst. Growth* **222** 701

- the authors should be in the form surname (with only the first letter capitalized) followed by the initials with no periods after the initials. Authors should be separated by a comma except for the last two which should be separated by 'and' with no comma preceding it.
- The article title (if given) should be in lower case letters, except for an initial capital, and should follow the date.
- The journal title is in italic and is abbreviated. If a journal has several parts denoted by different letters the part letter should be inserted after the journal in Roman type, e.g. *Phys. Rev. A*. **Please do not join the part letter to the volume number in bold type.**
- Both the initial and final page numbers should be given where possible. The final page number should be in the shortest possible form and separated from the initial page number by an en rule '–', e.g. 1203–14, i.e. the numbers '12' are not repeated.
- References to printed journal articles. A normal reference to a journal article contains three changes of font (see table 6).

**Table 6.** Font styles for a reference to a journal article.

Element	Style
Authors, date	Roman type
Article title (optional)	Roman type
Journal title	Italic type
Volume number	Bold type
Page numbers	Roman type

Here are some examples taken from published papers:

- [1] Strite S and Morkoc H 1992 *J. Vac. Sci. Technol. B* **10** 1237  
 [2] Nakamura S, Senoh M, Nagahama S, Iwase N, Yamada T, Matsushita T, Kiyoku H and Sugimoto Y 1996 *Japan. J. Appl. Phys.* **35** L74

10.1.1. *References to preprints.* For preprints there are two distinct cases:

1. Where the article has been published in a journal and the preprint is supplementary reference information. In this case it should be presented as:

[1] Kunze K 2003 T-duality and Penrose limits of spatially homogeneous and inhomogeneous cosmologies *Phys. Rev. D* **68** 063517 (*Preprint* gr-qc/0303038)

2. Where the only reference available is the preprint. In this case it should be presented as

[1] Milson R, Coley A, Pravda V and Pravdova A 2004 Alignment and algebraically special tensors *Preprint* gr-qc/0401010

10.1.2. *References to electronic-only journals.* In general article numbers are given, and no page ranges, as most electronic-only journals start each article on page 1.

- For SISSA journals the volume is divided into monthly issues and these form part of the article number

[1] Horowitz G T and Maldacena J 2004 The black hole final state *J. High Energy Phys.* JHEP02(2004)008

10.1.3. *References to books, conference proceedings and reports.* *References to books, proceedings and reports are similar to journal references, but have only two changes of font (see table 7).*

**Table 7.** Font styles for references to books, conference proceedings and reports.

Element	Style
Authors, Date	Roman type
Book title	Italic type
Editors	Roman type
Place (city, town etc) of publication, publisher	of Roman type
Volume, page number	Roman type

### Points to note

- Book titles are in italic and should be spelt out in full with initial capital letters for all except minor words. Words such as Proceedings, Symposium, International, Conference, Second, etc should be abbreviated to *Proc.*, *Symp.*, *Int.*, *Conf.*, *2nd*, respectively, but the rest of the title should be given in full, followed by the date of the conference and the town or city where the conference was held. For Laboratory Reports the Laboratory should be spelt out wherever possible, e.g. *Argonne National Laboratory Report*.
- The volume number, for example vol 2, should be followed by the editors, in a form such as 'ed A J Smith and P R Jones'. Use *et al* if there are more than two editors. Next comes the town of publication and publisher, within brackets and separated by a colon, and finally the page numbers preceded by p if only one number is given or pp if both the initial and final numbers are given.

Examples taken from published papers:

- [1] Sze S M 1969 *Physics of Semiconductor Devices* (New York: Wiley-Interscience)
- [2] Dorman L I 1975 *Variations of Galactic Cosmic Rays* (Moscow: Moscow State University Press) p 103
- [3] Caplar R and Kulisic P 1973 *Proc. Int. Conf. on Nuclear Physics (Munich)* vol 1 (Amsterdam: North-Holland/American Elsevier) p 517

- [4] Szytula A and Leciejewicz J 1989 *Handbook on the Physics and Chemistry of Rare Earths* vol 12, ed K A Gschneidner Jr and L Erwin (Amsterdam: Elsevier) p 133
- [5] Kuhn T 1998 Density matrix theory of coherent ultrafast dynamics *Theory of Transport Properties of Semiconductor Nanostructures (Electronic Materials* vol 4) ed E Schöll (London: Chapman and Hall) chapter 6 pp 173–214

### 10.2. Reference lists

Up to ten authors may be given in a particular reference; where there are more than ten only the first should be given followed by *et al.* Abbreviations of the names of periodicals used by IOP Publishing are usually the same as those given in British Standard BS 4148: 1985. If an author is unsure of an abbreviation it is best to leave the title in full. The terms *loc. cit.* and *ibid* should not be used.

Unpublished conferences and reports should generally not be included in the reference list and articles in the course of publication should be entered only if the journal of publication is known. A thesis submitted for a higher degree may be included in the reference list if it has not been superseded by a published paper and is available through a library; sufficient information should be given for it to be traced readily.

### Acknowledgments

Authors wishing to acknowledge assistance or encouragement from colleagues, special work by technical staff or financial support from organizations should do so in an unnumbered Acknowledgments section immediately following the last numbered section of the paper.

**Conference Thesis Submission Template:**

Click here, type the title of your paper, Capitalize first letter

First Author <sup>a</sup>, Second Author <sup>b</sup>, Third Author <sup>a,b</sup>

<sup>a</sup> First affiliation, Address, City and Postcode, Country

<sup>b</sup> Second affiliation, Address, City and Postcode, Country

Please list the names, years of birth, educational attainment, titles, posts, research areas and E-mails of the first author and the corresponding author.

The authors and the organizations to which the intellectual property belongs shall not be added, deleted or modified since the submission.

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**Abstract (300 words)**

Click here and insert your abstract text.

*Keywords:*Type your keywords here, separated by semicolons ;

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**Text**

Please make sure that you use as much as Times NewRoman fonts in your documents. To avoid unnecessary errors you are strongly advised to use the 'spellchecker' function of Word. Footnotes should be avoided if possible.

**Research Articles**

Introduction, experimental methods, results & discussion and conclusion shall be included. Requirements: 1) the contention shall be clear (usually referred to that explaining your topics); 2) the argument shall be solid (the tests, test data, graphs, tables, etc. are accurate); 3) the demonstration shall be sufficient (the discussion, result analysis and discussion on mechanism are detailed but not burdensome); and 4) the conclusion shall be complete.

The first-level, second-level and third-level chapters shall be numbered as 1, 2, 3..., 1.1, 1.2, 1.3..., 1.1.1, 1.1.2, 1.1.3...respectively.

**Introduction**

Provide a theoretical basis and context for the study (that is, the reason for the study). State its advancement, innovation, etc.

**Experiment**

Clearly describe the basic procedures of the study. Cite pertinent references. Ensure the reliability of the study, and make readers be able to validate the experiment based on the content.

**Results & Discussion**

Present your results in logical sequence in the text, tables, and figures. Do not repeat the data in the tables or figures. Do not repeat all the data in the tables or figures in the text. Figures and tables should be numbered consecutively in the order in which they are first mentioned in the text with concise titles (no detailed experimental conditions). The texts and data on figures shall be clear and visible.

The spelled-out abbreviation followed by the abbreviation in parenthesis should be used on first mention. Units of measurements should be reported in International System of Units.

Please edit the formats with Mathtype.

### Conclusion

Emphasize the new and important aspects and shortcomings of your study and put your findings in the context of experimental results. Do not repeat the data or other information given in other parts of the manuscript, such as in the Introduction or the Results section. State the possible influence of the findings and the meaning of further study combined with results.

### Review Articles

Do not simply list the previous work and conclusions, state your own opinions and evaluations based on the contents described. Show in the manuscript with their contributions, influence, advantages and deficiencies, and whether there is any universal rule in results achieved.

Figures should be clear with a resolution no less than 300 dpi.

### References

Journals or books published in recent years that you have read should be selected. References should be numbered consecutively in the order in which they are first mentioned in the text, and the sequence numbers should be identified in square brackets in the top right corner. For example:

- (1) Journal: ZOU Hong-qing, LYU Ji-cheng, WU Hou-chang, et al. Study of synergistic fluoropolymer coating technology on steel surface technology[J]. Surface technology, 2006, 35(5): 26-28.
- (2) Monograph: LI Ning. Operative technology of electroless plating[M]. Beijing: Chemical Industry Press, 2012.
- (3) Dissertation: LI Li. Preparation and frictional properties of polyamideimide coating[D]. Dalian: Dalian Maritime University, 2015.
- (4) Proceedings: LYU Ji-cheng, ZOU Hong-qing. Application of synergistic fluoropolymer coating on moulds of full-automatic making bag filling and sealing machine[C]//The fourth equipment environmental engineering development forum. Chongqing: Chongqing Wujiu Periodicals Press, 2016: 434-437.
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