

## SIGCSE China 推动计算教育科研

张 昱

中国科学技术大学

# 2020-2021图灵大会SIGCSE征文概况



❑ **SIGCSE分论坛主题：“AI+CE”**  
**Computing Education in the AI Era:  
For AI and By AI**

❑ **征文形式**  
Regular papers, Panels, Posters

❑ **征文时间： 2020年 2021年**

■ 摘要注册：		2021.5.14
■ 论文截稿：	2019.12.30	2021.5.20
■ 录用通知：	2020.2.1	2021.6.10
■ Camera Ready：	2020.3.15	2021.6.30

## ❑ Organization

- General Chair: 张铭
- PC Co-Chairs: 陈娟、张昱

❑ **2020年录用7篇(投稿33篇), 21%**

❑ **2021年录用3篇(投稿21篇), 14%**

CALL FOR PAPERS

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Yu Zhang (University of Science and Technology of China)

Program Committee  
Bo Yang (Linyi University)  
Junlin Lu (Peking University)  
Ke Zhang (Institute of Computing Technology, Chinese Academy of Sciences)  
Xi Wu (Chengdu University of Information Technology)  
Weidong Liu (Tsinghua University)  
Wenzhi Chen (Zhejiang University)  
Fei Han (Higher Education Press)  
Ru Li (Shanxi University)  
Ge Yu (NorthEast University)  
Bin Chen (Peking University)  
Bin Xu (NorthEast University)  
Xiaoxia Shi (Wenzhou University)  
Tian Song (Beijing Institute of Technology)  
Yanchun Sun (Peking University)  
Lin Wang (University of Jinan)  
Hongzhi Wang (Harbin Institute of Technology)  
Sheng Xiao (Hunan University)  
Chunfang Yuan (Nanjing University)  
Li Zhang (China Agricultural University)  
Jumin Zhao (Taiwan University of Technology)  
Hong Yu (Dalian Ocean University)  
Jianqiao Wei (Tianjin University)

CS Education Research Topics

- Active Learning
- Algorithms
- Architecture/Hardware
- Artificial Intelligence
- Compilers/Programming Languages
- Computational Thinking
- Computers and Society
- Cyber Security
- Data Science
- Data Structures
- Database/Data Mining
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- Distributed/Parallel Computing
- Games
- Graphics/Visualization
- Robotics
- Human-Computer Interaction
- Software Engineering
- Information Technology
- Mobile Apps
- Multimedia
- Networking
- Object-oriented Issues
- Open Source Software
- Operating Systems
- Privacy/Security
- Real-Time/Embedded Systems

Important date

Paper submission: Dec 30, 2019  
Notification: Feb 1, 2020  
Camera-ready: March 15, 2020

Submission Limits  
6 pages

Submission Link  
<https://easychair.org/conferences/7conf-acmturc2020new>

Topics of interest include  
Submission guideline

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Questions  
If you have any questions, please contact the SIGCSE China [sigcsechina@163.com](mailto:sigcsechina@163.com)

ACM Turing Award  
Celebration Conference China 2021

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Hongzhi Wang (Harbin Institute of Technology)  
Hong Yu (Dalian Ocean University)  
Haiyan Zhao (Peking University)  
Ning Wu (Xi'an Jiaotong University)  
Xia Sun (Northwest University)  
Wei Wang (East China Normal University)  
Zhao Wang (Peking University)  
Xiaoxia Song (Shanxi Datong University)  
Xiaochun Yang (Shanghai AchieveFun Info. Co.)  
Zichen Xu (Nanchang University)

The ACM TURC 2021 (SIGCSE China) Symposium  
"Computing Education in the AI Era: For AI and By AI"  
July 31 – August 1, 2021, Hefei, China

The ACM TURC 2021 (SIGCSE China) Symposium is a leading international forum at the intersection of computer science and the learning sciences, seeking to improve practice and theories of CS education. ACM TURC 2021 (SIGCSE China) will be held in Hefei, China, July 31-August 1, 2021. We invite colleagues from around the world to contribute to, review for, and attend ACM TURC 2021 (SIGCSE China). We encourage you to share your new ideas for computing syllabi, laboratories, teaching, pedagogy, and education research.

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More information about ACM TURC 2021 SIGCSE China Symposium can be found [https://www.acmturc.com/2021/en/SIGCSE\\_China.html](https://www.acmturc.com/2021/en/SIGCSE_China.html).

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Experience Reports and Tools Topics

- API and Library use for Education
- Assessment
- Classroom Management
- Communication Skills
- Course Management Systems
- CS1/2
- Curriculum Issues
- Graduate Instruction
- Instructional Technologies
- Laboratory Experience
- Learning Environment
- Teaching Problem Solving Skills
- Teaching Teamwork and Collaboration Skills
- Tool Use for Education
- Undergraduate Instruction

Curriculum Topics

- Capstone Courses
- Professional Practice
- Undergraduate Research
- Distance/Online Education
- Graduate Studies
- New Degree Initiatives
- New Interdisciplinary Programs (CS + X)

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Important date

Abstract and title registration:  
May 14, 2021 22:00 AOE

Paper submission:  
May 20, 2021 22:00 AOE

Notification: June, 2021  
Camera-ready: June 30, 2021

Questions  
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2021 5 14

**投稿稿件：英文、双盲**

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□ 2016年11月12日成立

<https://china.acm.org/SIGCSE/home.html>

ACM SIGCSE 中国分会成立暨学术报告会合影留念

2016.11.12





## □ 举办 4 届图灵大会分论坛

- TURC 2021 SIGCSE  
AI+CE
- TURC 2019 SIGCSE  
CS for Global
- TURC 2018 SIGCSE  
CS for More
- TURC 2017 SIGCSE



TURC 2017 SIGCSE 合影, 2017.5 上海

## □ 举办 4 届图灵大会分论坛

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- TURC 2018 SIGCSE  
CS for More
- TURC 2017 SIGCSE



TURC 2019 SIGCSE理事会合影, 2019.5 成都



## □ 首届CompEd (ACM SIGCSE第4个高水平计算机教育国际会议) TURC2019

- 2018.10.23截稿:  
收到100 papers, 3 panels, 9 WGs, 4 BoF, 10 posters
- 2018.12.23录用:  
33 papers(33%),  
1 panel (33%), 3 WG,  
2 BoF, 8 posters
- 154人注册并参会  
55人同时注册图灵大会
- Working Groups (3天)  
5月14-16日
- CompEd主会(1天+2个半天)  
5月17-19日



## □ 2017年9月：对SIGCSE介绍



第9期  
176 2017年9月10日

计算机教育  
Computer Education

文章编号：1672-5913(2017)09-0176-04

中图分类号：G642

### 由第48届ACM计算机科学教育大会看国内 计算机教育科研

张昱<sup>1</sup>, 陈娟<sup>2</sup>, 肖胜刚<sup>3</sup>, 张铭<sup>4</sup>

- (1. 中国科学技术大学 计算机科学与技术学院, 安徽 合肥 230026 ;
- 2. 国防科学技术大学 计算机学院, 湖南 长沙 410073 ;
- 3. 河北大学 计算机学院, 河北 保定 071002 ;
- 4. 北京大学 信息科学技术学院, 北京 100871 )

**摘要：**介绍第48届ACM计算机科学教育大会，重点针对本届大会的环节设置、特邀报告以及丰富多彩的教育科研成果展示进行说明，分析目前中国信息教育的现状，最后指出有待进一步重视和加强的环节。

**关键词：**SIGCSE；ACM 计算机科学教育大会；计算机科学教育



## □ 2017年10月：专访SIGCSE主席



安布尔·塞特尔 (Amber Settle) 博士是美国计算机学会计算机教育特别兴趣组 (ACM SIGCSE) 主席。她长期关注中国计算机教育发展动向，多次访问中国，积极推进 ACM 与中国计算机教育界的密切合作。她在芝加哥大学获得博士学位，现任德保罗大学 (DePaul University) 计算机学院副教授。

动态

中国计算机学会通讯 第13卷 第10期 2017年10月

人物专访

# 现在, 我们需要怎样的计算机教育?

## ——专访ACM SIGCSE主席安布尔·塞特尔博士

陆俊林 陈沫 张铭  
北京大学

关键词：计算机教育 MOOC

## □ 2019年4月 “计算机教育的研究” 专题 中国计算机学会通讯

专题 中国计算机学会通讯 第15卷 第4期 2019年4月

### 计算机教育的研究

关键词：计算机教育

特邀编辑：张 铭  
北京大学

### 计算机教育研究浅析

——从 ACM 计算机科学教育大会看国内外计算机教育科研

张科、张铭、陈娟、张昱、常轶松

张 科<sup>1,4</sup> 张 铭<sup>2</sup> 陈 娟<sup>3</sup> 等

<sup>1</sup> 中国科学院计算技术研究所

<sup>2</sup> 北京大学

<sup>3</sup> 国防科技大学

<sup>4</sup> 中国科学院大学

关键词：计算机教育 计算学科 课程体系 计算思维

### 面向可持续竞争力的未来高等工程教育态势及服务型教育

徐晓飞  
哈尔滨工业大学

### 中小学计算机基础教育与创新能力培养

陈 斌<sup>1</sup> 李冬梅<sup>2</sup> 毛华均<sup>2</sup>

<sup>1</sup> 北京大学

北京大学附属中学

### 信息技术领域新工科建设与工程教育改革

张 龙<sup>1</sup> 刘 华<sup>2</sup>

<sup>1</sup> 高等教育出版社

<sup>2</sup> 中国软件行业协会

关键词：新工科建设 新行动 中国方案

### 加强文科生计算机教育，培养跨学科复合型创新人才

关键词：大文科 计算机教育 信息素养培养 跨学科创新人才

卢湘鸿

北京语言大学



## 2020年12月 “ACM/IEEE 计算课程体系规范 CC2020 对中国计算机专业设置的启发” 专栏 中国计算机学会通讯

专栏 中国计算机学会通讯 第16卷 第12期 2020年12月

### ACM/IEEE 计算课程体系规范 CC2020 对中国计算机专业设置的启发

张铭、陈娟、韩飞、杨晓春、吴锡

张铭<sup>1</sup> 陈娟<sup>2</sup> 韩飞

<sup>1</sup> 北京大学

<sup>2</sup> 国防科技大学

<sup>3</sup> 高等教育出版社

关键词：计算机专业设置 CC2020



图1 CC2020 涵盖的计算学科规范版本

## □ 2017年10月21日 北京 《计算机教育的科学研究与展望》

### 提出对于NSFC以及教育部关于计算机教育研究的建议

- 请郑永和局长发言
- 张铭介绍美国NSF情况
- 张龙介绍国内过去5年计算机教育研究的巨大进展
- 刘卫东、陆俊林介绍 ACM/IEEE 学科规范情况
- 秦磊华介绍华中科大教育研究情况
- 沙龙其他老师就列举的问题进行讨论



## □ 2017年10月21日 北京 《计算机教育的科学研究与展望》

### 提出对于NSFC以及教育部关于计算机教育研究的建议

- 请郑永和局长发言
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- 张龙介绍国内过去5年计算机教育研究
- 刘卫东、陆俊林介绍 ACM/IEE
- 秦磊华介绍华中科大教育研究
- 沙龙其他老师就列举的问题进

2018年度国家自然科学基金  
新增“F0701教育信息科学与技术”  
支持教育信息科学与技术领域的研究者  
围绕教育问题开展跨学科的  
前沿性、基础性和交叉性研究，  
以破解信息时代中国教育发展中  
面临的一系列难题。

获批**38项**面上项目及**17项**青年科学基金项目

## □ SIGCSE: 1970年第1届, 2021年第52届, 每年2~3月在美国召开

展示创新教学计划、课程体系和授课成果

### 长文 (4 篇)

#### ■ 2007: Haifeng Liu, Xianglan Chen, Yuchang Gong (中科大)

BabyOS: a fresh start. (操作系统教学)

#### ■ 2008: Yanqing Wang et al. (哈工大 & 都柏林理工大学) Process Improvement of Peer Code Review and Behavior Analysis of its Participants (同行代码评审过程改进及参与者行为分析)

#### ■ 2010: Ming Zhang et al.(北大 & 俄勒冈大学) Undergraduate computer science education in China (中国的大学计算机科学教育)

#### ■ 2019: Ke Zhang et al. (计算所 & 国科大) Computer Organization and Design Course with FPGA Cloud 使用FPGA云平台开展计算机组成原理课程教学活动

### 其他 (多篇 Poster 等)



## □ ITiCSE: 1996年第1届, 2021年第26届, 每年6~7月在欧洲召开

关注教学方法和教学技术创新及应用, 工作组机制为其亮点之一

### 长文 (4 篇)

- 2015: Danli Wang et al.(中科院软件所) A TUI-based Programming Tool for Children
- 2018: Haoyu Zhou et al. (北大) Botzone: an online multi-agent competitive platform for AI education (面向AI教育的竞赛平台)
- 2021: 2篇  
Yu Zhang et al. (中科大&北航&清华) Encouraging Compiler Optimization Practice for Undergraduate Students through Competition (编译优化实践)  
Shu Lin et al.(北大&Virginia Tech.) PDL: Scaffolding Problem Solving in Programming Courses 编程课程的问题求解

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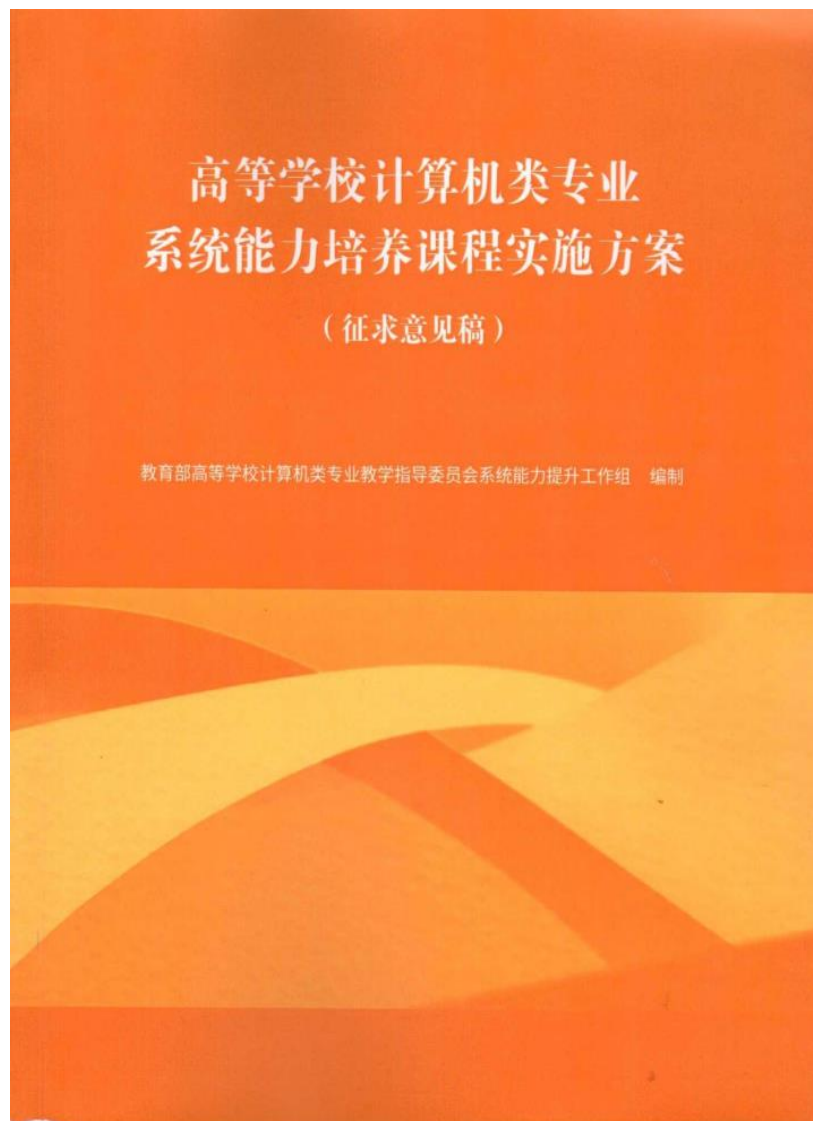


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