

1. **Title of the workshop/special-session and acronym**

The 7th International Workshop on Application of Big Data for Computational Social Science (ABCSS2022)

2. **Proposed duration (half-day or full-day)**

full-day

3. **Workshop/special session (co-)chair(s) name, affiliation and e-mail address**

Fujio Toriumi, The University of Tokyo, tori@sys.t.u-tokyo.ac.jp

Isamu Okada, Soka University, okada@soka.ac.jp

Hiroki Takikawa, The University of Tokyo, takikawa@l.u-tokyo.ac.jp

Mitsuo Yoshida, University of Tsukuba, mitsuo@gssm.otsuka.tsukuba.ac.jp

4. **Short CV of (co-)chair(s) including past experience in organizing workshops and/or related events**

Fujio Toriumi is a Professor of Graduate School of Engineering, The University of Tokyo. He received his Ph.D degree from Tokyo Institute of Technology, Japan in 2004. His research interests are Computational Social Science and AI technologies for Society. He is a board member of Japan Institute of Law and Information Systems, and SIG Computational Social Science Japan. He organized 1st to 6th Workshop on Application of Big Data for Computational Social Science, International Workshop on Data Oriented Constructive Mining and Massively Multi-Agent System: Simulations, Models, and Tools, and Symposium of Incentive Systems in the Moral AI Society.

Isamu Okada is an Associate Professor of Department of Business Administration, Soka University. He received his Ph.D degree from University of Electro-Communications, Japan in 2000. He is a secretary general Society of Social Informatics. His research interests are social simulations and computational social sciences as well as evolutionary game theory and the social dilemmas. He was an organizer / chair of the following conferences / workshops: The 45th Hawaii International Conference on system Sciences (HICSS), Session on Impacts of Social Media, and Open Forum on Social Media in Social Informatics in Jan 2012. Korea-Japan Joint Workshop on Social Simulation (JaKoSS) in Mar 2014. Kickoff Workshop on Computational Social Science in Japan in Feb 2016. ECMT B (European Conference on Mathematical Theoretical Biology) Session of "New trends in game-theoretical studies on the evolution of cooperation" in Jun 2016. HICSS-51 Symposium on "Computational Social Science Meets Social Dilemmas: Integrating Simulations, Experiments, and Big Data Analyses" in Jan 2018. HICSS-52 Symposium on "Incentive systems in the moral AI society" in Jan 2019.

Hiroki Takikawa is an Associate Professor at Graduate School of Humanities and Sociology, The University of Tokyo, Japan. He earned his PhD and BA in Sociology from The University of Tokyo. His research area includes mathematical sociology, social network analysis, social stratification and computational social science. He is currently studying the mechanism of social division and political polarization through large-sca

le data analysis. He organized 1st to 6th Workshop on Application of Big Data for Computational Social Science.

Mitsuo Yoshida is an Associate Professor of Faculty of Business Sciences, University of Tsukuba. He is also the founder of TechTech Inc., which provides a news search engine and others. He received his Ph.D degree from University of Tsukuba, Japan in 2014. His research interests are the science of science, computational social science and natural language processing. He organized 3rd to 6th Workshop on Application of Big Data for Computational Social Science, and ACM IUI2018 Workshop on Web Intelligence and Interaction.

5. Abstract: One paragraph describing the workshop/special-session purpose (max. 200 words)

Contemporary computational sciences give important impacts on wide aspects of social sciences. Simulation technologies or abilities to calculate complex systems social scientists want to deal with are exponentially expanding, and thus more complex and more real systems could be a target. The so-called Big Data analysis allows us to quantify human behavior and social phenomena at a fine-grained level, yet it is global in scale, thereby complementing experimental data and theoretical and computational simulation results. From this perspective, we annually organize a series of workshops titled “applications of big data for computational social science.” We plan to organize the 7th workshop in WI-IAT 2022 this year while the past six workshops, in total, they were very successful with more than 110 paper submissions, 74 accepted talks, and more than 250 audiences. In the workshop this year, we expect more submissions in many fields of social sciences that are not only sociology, economics, marketing, political science, but also informatics, complexity science, econophysics, sociophysics, and culturomics.

6. Scope and topics of the workshop

Application of Sociology/Sociophysics using Big Data
Application of Econometric/Econophysics using Big Data
Social Media Data analyses from economic/political/social perspective
Informatics using social Big Data
Marketing science using social Big Data
Business analytics using Big Data on consumer behavior
Culturomics and art management
Analysis of reputation of entertainment using Big Data

7. Motivation and rationale

1. Why the workshop is related to WI-IAT 2022;
Because a significant feature of our workshop is to provide an integrating viewpoint of three main approaches that are data science, mathematics and simulations, an

d experiments. Such a viewpoint is suitable for your conference because studies on web intelligence must require interdisciplinary approaches. Thus, we share the same keywords including big data analysis and network science as well as User behavior modeling in the Web, Social intelligence, and Misinformation handling in the Web which are topics you are encouraging. We believe that our workshop will contribute to the aim of WI-IAT 2022.

2. Why the topic is timely and important;

Because the field of computational social sciences are cutting-edge because simulation technologies or abilities to calculate complex systems social scientists want to deal with are exponentially expanding, and thus more complex and more real systems could be a target. Furthermore, the so-called Big Data analysis allows us to quantify human behavior and social phenomena at a fine-grained level, yet it is global in scale, thereby complementing experimental data and theoretical and computational simulation results.

3. Why the workshop may attract a significant number of submissions of good quality;

Because we had been organized four workshops from 2016 to 2021 so far. They were very successful with more than 110 paper submissions, 74 accepted talks, and more than 250 audiences. As big data of the web and computational social science are attracting increasing attention from many research fields, we expect more submissions and participants this year.

4. Why the workshop may attract a large number of attendees, in addition to the authors;

Because we had been organized four workshops from 2016 to 2021 so far. In total, they were very successful with more than 110 paper submissions, 74 accepted talks, and more than 250 audiences. As big data of the web and computational social science are attracting increasing attention from many research fields, we expect more submissions and participants this year.

5. Why the workshop differs from others;

Because our target on computational social sciences is quite unique and may provide diverse perspectives to the attendances of the conference.

6. Related workshops and conferences of similar topics;

We had been organized four workshops in IEEE Big Data 2016 to 2018, WI 2019, and WI-IAT 2020, 2021 so far.

WORKSHOP DETAILS:

8. Tentative committee lists (organizers, program committee, etc.)

Kimitaka Asatani, The University of Tokyo
Xiaojie Chen, University of Electronic Science and Technology of China
Yasuko Kawahata, Rikkyo University
Teruyoshi Kobayashi, Kobe University
Satoshi Kurihara, Keio University
Takayuki Mizuno, National Institute of Informatics
Kazutoshi Sasahara, Tokyo Institute of Technology
Yoshihiko Suhara, Megagon Labs
Hirohiko Suwa, Nara Institute of Science and Technology
Masanori Takano, CyberAgent, Inc.
Hideaki Takeda, National Institute of Informatics
Shinichi Yamaguchi, GLOCOM
Hitoshi Yamamoto, Rissho University

9. Expected number of participants and the expected number of submissions

Expected number of participants: 60

Expected number of submissions: 25

10. A short list of potential authors that are expected to submit papers to the workshop

Yoshifumi Seki, Masanori Takano, Marco Di Giovanni, Mahsa Badami, Anthony Breitzman, Vinh T. Nguyen, Yutaka Nakai, Yasuko Kawahata, Eiichi Umehara, Hirohiko Suwa, Yuki Ogawa, Tatsuo Yamashita, Olfa Nasraoui, Chen Zhao, Wenbin Niu, Youchao Lin, Jonathan Zhu, Benjamin E. Bagozzi, Ore Koren, Daniel Rajchwald, Natasha Markuzon, and Edoardo Airoldi

11. A draft call for papers (max 1 page)

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The 7th International Workshop on
Application of Big Data for Computational Social Science
WI-IAT ' 22 Workshop

<https://css-japan.com/abcss2022/>

Despite the progress of traditional social science, modern social science is facing a serious paradigm shift due to the development of computer and Internet technologies. Human behavior and social phenomena is possible to be quantified by big data digitally tracing online activities and mobility records at a granular level. In some cases, big data can be analyzed using technologies evolving in the natural sciences, such as physics, chemistry, and biology. Experimental data and multiple results from theoretical and computational simulations complement them. Both theoretically and analytically grounded insights may open new doors of computational social sciences. From this perspective, we hold a series of annual workshops on application of big data for computational social science for several years. The scope of the workshop includes, but is not limited to, big data applications, big data collection and use, an integrated framework for theory, simulation, statistics, and experiments.

FORMAT

The papers must be submitted electronically via Cyberchair in standard IEEE Conference Proceedings format (max 8 pages)

DATE & PLACE

November 17, 2022 at Niagara Falls, Canada

This workshop is in conjunction with the 2022 IEEE/WIC/ACM International Joint Conference on Web Intelligence and Intelligent Agent Technology (WI-IAT' 22 on <https://www.wi-iat.com/wi-iat2022/>) between November 17 and 20.

RESEARCH TOPICS

Application of Sociology/Sociophysics using Big Data

Application of Econometric/Econophysics using Big Data

Social Media Data analyses from economic/political/social perspective

Informatics using social Big Data

Marketing science using social Big Data

Business analytics using Big Data on consumer behavior

Culturomics and art management

Analysis of reputation of entertainment using Big Data

IMPORTANT DATES

Aug. 15, 2022 Due date for full workshop papers submission

Sep. 15, 2022 Notification of paper acceptance to authors

Sep. 30, 2022 Camera-ready of accepted papers

Nov. 17, 2022 Main Conference and Workshops

12. A description of the publicity and promotion plan

We have plans to invite participants in the following conferences:

- IC2S2-2022 (<https://boothuchicagocaaai.wixsite.com/website-2>)
- ICWSM2022 (<https://www.icwsm.org/2022/index.html/>)

In addition, we also have plans to invite those who submit to the previous four AB CSS workshops.

13. Workshop format planned (keynote, expected number of presented papers, invited talks, panels, demonstrations, etc.)

We expect approximate 10 to 15 oral presentations and neither keynote nor invited speaker.

14. TENTATIVE INTERNAL AND EXTERNAL SCHEDULE (Expect Adjustments By The Chairs To Align All Workshop/Special Session Schedules)

1. Submission deadline; 15st Aug
2. Review deadline; 10th Sep
3. Acceptance deadline; 15th Sep
4. Camera ready; 30th Sep
5. Program ready; 15th Oct