

# LiDS Newsletter

Volume 4, Number 2 – July 2019

A section associated with the American Statistical Association

ISSN 2473-5159

## In Brief

\* \* \* \* \*

<https://community.amstat.org/lids/home>

Published newsletters are archived under "Newsletters".

\* \* \* \* \*

### Nomination for Election 2019

The Nomination Committee calls for nomination for Chair-Elect, Treasurer, and Program Chair-Elect.

### Member Awards

Four new ASA Fellows

### Annual LiDS Business Meeting at JSM 2019

5:00–6:00pm, Tuesday, 7/30/2019  
CC-712.

### Report from the 2019 LiDS Conference

Over 230 participant and 50 invited sessions; Student paper awards and student poster awards.

### LiDS Activities at JSM 2019

One Invited Session, two Topic-Contributed Sessions, and more.

### Invited Session Proposal for JSM 2020

Due September 5, 2019

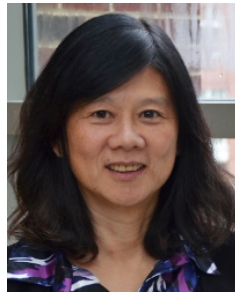
### Request for Proposals for Hosting the 2021 LiDS Conference

\* \* \* \* \*

### LiDS Officers

|                       |                 |
|-----------------------|-----------------|
| Chair:                | Jianwen Cai     |
| Chair-Elect:          | Nicholas Jewell |
| Past Chair:           | Richard Cook    |
| Secretary 2019-2021:  | Joan Hu         |
| Treasurer 2016-2019:  | Chiung-Yu Huang |
| Program Chair:        | Guoqing Diao    |
| Program Chair-Elect : | Zhezhen Jin     |
| Past Program Chair:   | Yu Shen         |
| Webmaster:            | Ker-Ai Lee      |
| Newsletter Editor:    | Jun Yan         |

## Chair's Message



Greetings! It has been exciting 6 months since we started as a new ASA Section at the beginning of the year. LiDS membership has been steadily growing in the first 6 months. We now have over 290 members, which has surpassed the membership in the LiDA-Interest Group when we applied for the section status last year. This is very exciting and demonstrates the enthusiasm and support for our Section. If you have colleagues or students with a strong interest in life history data, please invite them to join.

In May 29-31, 2019, LiDS sponsored the second conference on Lifetime Data Science: Foundations and Frontiers, held at the University of Pittsburgh. This second conference was inspired by the highly successful inaugural lifetime data science conference in Connecticut in 2017, with the goal to continue to promote and support the development and application of statistical methods for design and analysis of lifetime or time-to-event data. The conference was again highly successful with 50 exciting invited sessions and over 230 participants. The Scientific Program was organized by a large and very distinguished Program Committee led by Dr. Richard Cook from University of Waterloo. Richard did an outstanding job in orchestrating this conference and we all benefitted from his enthusiastic and thoughtful leadership. The Local Organizing Committee, led by Drs. Ying Ding and Yu Cheng from the University of Pittsburgh, was extremely effective. They took remarkable care and made incredible effort to ensure the conference ran smoothly and efficiently. Their efforts are very much appreciated!

The highly insightful and thought provoking keynote speeches of the conference were delivered by three very distinguished leaders in our field: Professor Odd Aalen from the University of Oslo, Norway, Professor Ross Prentice from Fred Hutchinson Cancer Research Center and University of Washington, USA, and Professor Danyu Lin from University of North Carolina at Chapel Hill, USA. Associated with the conference were three full-day short courses taught by four leading experts in their respective areas: Drs. Ørnulf Borgan, Sven Ove Samuelsen, Hein Putter, and Jing Qin. The conference included poster and paper competitions for students and post-docs, where the competition results are summarized in this Newsletter by Drs. Ying Ding and Yu Cheng, the co-chairs of the Local Organizing Committee. The exciting two-day technical program covered a very broad array of interesting topics delivered by over 170 speakers, a substantial proportion of whom are senior leaders in the field. During and after the conference, the LiDS executive committee received very positive feedbacks from conference attendees. Because of the enthusiasm expressed by members, the executive committee has decided to hold a third LiDS conference in 2021. A call for proposals for hosting the conference is included in this Newsletter.

LiDS will hold its annual general business meeting (first time as an ASA Section) at the JSM in Denver. All members and friends are welcome to attend:

- Meeting Title: Lifetime Data Science Section Business Meeting
- Meeting Time: 5:00–6:00pm, Tuesday, 7/30/2019
- Meeting Room: CC-712.

Please attend if you can make it to hear more details about the activities of our section and enjoy the snacks! I hope you are having a great summer and I look forward to seeing many of you at the JSM!

*Jianwen Cai, Chair 2019*

## Nominations Invited for Positions on the Executive Committee



This fall the annual election of officers for Sections of the ASA will take place and as Chair of the Nominations Committee I am pleased to announce that we are seeking nominations for three positions on the LiDS Executive Committee (EC).

In 2020 there will be an election for Chair-Elect, Treasurer, and Program Chair-Elect. The candidate elected in

2020 for the position of Chair-Elect will serve as Chair-Elect in 2021, Chair in 2022 and Past-Chair in 2023. The candidate elected in 2020 for the position of Treasurer will serve over the period 2021-2023. The candidate elected in 2020 for Program Chair-Elect will be Program Chair-Elect in 2021, Program Chair in 2022, and Past-Program Chair in 2023.

In accordance with the charter of the Section on Lifetime Data Science, the Nominating Committee consists of the Past Chair of LiDA/LiDS (Richard Cook), the Past Program Chair (Yu Shen), and one person designated by the Chair (TBD); the Past Chair of the Executive Committee serves as Chair of the Nominating Committee. The Nominating Committee shall be responsible for nominating a slate of officers for each annual election which is to be submitted to the ASA by mid-November. There is the opportunity for members of the Section on Lifetime Data Science to nominate candidates for open positions. Such nominations must be signed by at least five members of the Section on LiDS. Nominators should ensure that the nominee is

- (a) a member of the ASA,
- (b) a member of the Section on Lifetime Data Science, and
- (c) is willing to stand for the nomination.

Nominations should be sent to the Chair of the Nominations Committee (Richard Cook, [rjcook@uwaterloo.ca](mailto:rjcook@uwaterloo.ca)) with a copy to the Secretary (Joan Hu, [joan.hu@sfu.ca](mailto:joan.hu@sfu.ca)). Please make the subject heading of any nominations “Nomination for 2020 Election for LiDS EC”. The deadline for nominations is October 1, 2019. The election is coordinated by the Committee on Sections (COS) of the American Statistical Association.

*Richard Cook, Nomination Committee Chair*

## Member Awards: New ASA Fellows

**Haoda Fu**, Senior Research Adviser, Eli Lilly and Company, “for broad scientific contributions to statistics through Bayesian methods, survival analysis, machine learning, artificial intelligence, for contributions to the field of diabetes care, for excellence in pharmaceutical consulting and for contributions to the profession.”

**Bo Li**, Professor, University of Illinois at Urbana-Champaign, “for fundamental contributions to spatial-temporal modeling, paleoclimate reconstruction analysis, and environmental health analysis; for exemplary mentorship of students; and for outstanding service to the profession.”

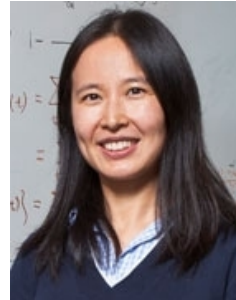
**Alexander Tsodikov**, Professor, University of Michigan, “for innovative contributions to statistical theory and methods for stochastic models of diseases, especially in cure models, cancer screening, and early detection; collaborative research in medicine and basic sciences; education and mentoring of clinical faculty; and leadership in collaborative research administration and education.”

**Menggang Yu**, Professor, University of Wisconsin-Madison, “for outstanding and impactful collaborative and methodological research in clinical biostatistics; for effective and strong leadership and extensive mentoring; and for service to the profession.”

## 2019 LiDS Conference Report



This year the second Conference on Lifetime Data Science “Foundations and Frontiers” was organized and sponsored by the ASA LiDS Section, hosted and sponsored by the University of Pittsburgh, with additional sponsorship by the ASA. The event took place at the University of Pittsburgh during May 29–31, where about 230 people from more than 10 countries participated, which is an amazing accomplishment.



The first day offered short courses on “Two Phase Studies for Lifetime Data” by **Ørnulf Borgan** (University of Oslo, Norway) and **Sven Ove Samuelsen** (University of Oslo, Norway), “Dynamic Prediction in Survival Analysis” by **Heintje Putter** (Leiden University Medical Centre), and “Biased Sampling, Left Truncation and Survival Analysis” by **Jing Qin** (NIH/NIAID). It was followed by two full days of invited sessions. A welcome reception and poster presentation session, as well as a banquet were held at the Wyndham Pittsburgh University Center.

Keynote speakers (Figure 1) included Professor **Odd O. Aalen** (University of Oslo, Norway) “Causal Inference for Survival Data, with Emphasis on Mediation Analysis”, Professor **Ross Prentice** (University of Washington) “Regression Models and Multivariate Life Tables”, and Professor **Danyu Lin** (University of North Carolina) “Semiparametric Regression Analysis of Interval-Censored Data”. Their insightful presentations showcased recent advances in cause inference, multivariate association analyses, and semiparametric methods for interval censored data.

In addition, fifty parallel sessions covered many exciting developments in our discipline in addressing challenging problems arising in the frontiers of modern science and technology. The topics included new methods for high dimensional genomic and health service data, issues surrounding estimands and causal inference, use of administrative data for scientific inquiry, joint modeling of time-to-event and longitudinal data, personalized





Figure 1: The three keynote speakers with the 2019 LiDS co-chairs; from left to right Drs. Cook, Lin, Prentice, Aalen, Cai.

treatment selection, among many others. We are grateful to all session organizers and the speakers for their contributions to our exceptional scientific program.

The Student Paper Competition and Student Poster Competition drew a large number of submission, which made the selection of winners a challenging job. We would like to extend special thanks to Professor Guoqing Diao and all other members of the Student Award Committee (detailed list given at <http://lids2019.pitt.edu/committees.html#>) for their great efforts. Final student paper award winners were Nicole Butera from UNC Chapel Hill, Rui Chen from the University of

Wisconsin-Madison, Gabrielle Simoneau from McGill University, Bo Wei from Emory University, Yue Wei from the University of Pittsburgh, Yi Xiong from Simon Fraser University, and Ting Ye from the University of Wisconsin-Madison. In addition, three students won the Student Poster Award: Busola Sunusi from UNC Chapel Hill, Tao Sun from the University of Pittsburgh, and Andrew Ying from the University of California San Diego.

Lastly, we would like to thank the dedicated staff members at the University of Pittsburgh and University of Waterloo, and all of the student volunteers from the University of Pittsburgh,



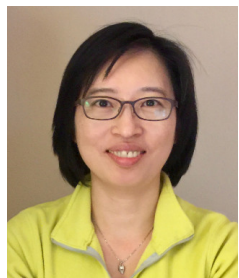
Figure 2: 2019 LiDS Local co-organizers with staff and student volunteers.



whose efforts have ensured the success of this conference (Figure 2). We also gratefully acknowledge the Executive Committees of the Lifetime Data Science, and the co-chairs Professors Richard Cook and Jianwen Cai in particular, for their guidance and leadership throughout the entire process of the event.

*Ying Ding and Yu Cheng, Co-Chairs, Local Organization*

## Treasurer's Report



The beginning balance of the LiDS Section account on January 1, 2019 was \$14,228.33, which is the surplus from the 2017 LiDS conference held at the University of Connecticut. The total amount of membership dues collected between January 1, 2019 and June 1, 2019 was \$282. The net profit from 2019 LiDS conference held at the University of Pittsburg during May 29-31 was \$29,292.55. The ending balance on June 30, 2019 was \$43,802.88.

| <b>Beginning Balance</b>   | <b>1/1/2019</b> | <b>\$14,228.33</b> |
|--|-----------------|--------------------|
| <b>Income:</b>   |                 |                    |
| Membership (1/1/2019 to 6/1/2019)  |                 | \$282.00           |
| Surplus from 2019 LiDS conference<br>(Income: \$60,768.49, expense: \$31,475.94) |                 | \$29,292.55        |
| <b>Total Income</b>  |                 | <b>\$29,574.55</b> |
| <b>Expense:</b>  |                 |                    |
| <b>Total Expense</b>   |                 | <b>\$0</b>         |
| <b>Net Total Income</b>  |                 | <b>\$29,574.55</b> |

*Chung-Yu Huang, Treasurer 2016–2019*

## LiDS Activities at the 2019 JSM

### Invited session sponsored by LiDS

Tuesday, 7/30/2019, 8:30am – 10:20am, CC-506  
 Statistical Methods for Composite Time-To-Event Endpoints  
 Organizer: Lu Mao  
 Chair: Ting Ye  
 Speakers, Lu Mao, Guoqing Diao, David Oakes, Xiaodong Luo, David C. Hoaglin  
 Discussant: KyungMann Kim

### Topic-contributed sessions sponsored by LiDS

Tuesday, 7/30/2019, 8:30am – 10:20am, CC-507  
 Recent Advances in Lifetime Data Analysis  
 Organizer: Mei-Ling Ting Lee  
 Chair: Chung-Chou Chang  
 Speakers: Yu-Jen Cheng, Sundarraman Subramanian, Tianzhou Ma, Ming-Ling Ting Lee  
 Discussant: George Whitmore

Wednesday 7/31/2019, 10:30am – 12:20pm, CC-603  
 Estimand Framework and Its Impact on Drug Development in Oncology  
 Organizers: Evgeny Degtyarev, Kaspar Rufibach

Chair: Rui Tang  
 Speakers: Evgeny Degtyarev, Jonathan Siegel, Steven Sun, Michelle Casey  
 Discussant: Kunthel By

### Contributed sessions sponsored by LiDS

Monday, 7/29/2019, 2:00pm – 3:50pm, CC-504  
 New Advances in the Analysis of Competing Risks Data and Interval Censored Data and Related Topics

Chair: Scott Bruce  
 Speakers: Eric Kawaguchi, Alexander C McLain, Sai Dharmarajan, Seungbong Han, W Yao, Chyong-Mei Chen

Tuesday, 7/30/2019, 2:00pm – 3:50pm, CC-709  
 Joint Modeling of Longitudinal and Survival Data and Related Topics

Chair: Mengdie Yuan  
 Speakers: Bo Hu, Yin-Chu Chang, Ningshan Zhang, Allison Furgal, Biyi Shen, Krithika Suresh, Adams Kusi Appiah

### Contributed poster session sponsored by LiDS

Wednesday, 7/31/2019, 10:30am – 12:20pm, CC-Hall C  
 Chair: Wendy Meiring  
 Presenters: John E Kolassa, Youfei Yu

### Invited session co-sponsored by LiDS

Wednesday, 7/31/2019, 2:00pm – 3:50pm, CC-109  
 Risk Prediction Methods and Applications in Risk Stratified Prevention  
 Organizer: Parichoy Pal Choudhury  
 Chair: Yei Eun Shin  
 Speakers: Jon Steingrimsson, Allison Meisner, Prosenjit Kundu, Amber Wilcox, Rebecca Yates Coley

### Topic-contributed sessions co-sponsored by LiDS

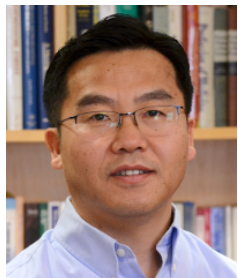
Monday, 7/29/2019, 8:30am – 10:20 am, CC-104  
 Recent Advances in Cure Rate Models for Long-Term Survivors  
 Organizer: Wei-Wen Hsu  
 Chair: KyungMann Kim  
 Speakers: Wei-Wen Hus, David Todem, Gyuhyeong Goh, Narayanaswamy Balakrishnan, Jeremy Taylor

Wednesday, 7/31/2019, 2:00pm – 3:50pm, CC-112  
 Analysis of Left-Censored Data (E.G., Below Detection): Real-World Problems in Need of Statisticians  
 Organizer: Brenda W Gillespie  
 Chair: Alexander C McLain  
 Speakers: Brian Weaver, Brenda W Gillespie, Yanming Li, Shanshan Zhao  
 Discussant: William Q. Meeker

Thursday, 8/1/2019, 10:30am – 12:20pm, CC-106  
 Advanced Statistical Methods for Large Data Sets  
 Organizer: Xingqiu Zhao  
 Chair: Jianguo Sun  
 Speakers: Xin Guo, Binyan Jiang, Yuanyuan Lin, Cheng Wang, Xingqiu Zhao

*Guoqing Diao, Program Chair 2019*

## Call for Session Proposals for the 2020 JSM



The 2020 Joint Statistical Meetings (JSM) will be held in Philadelphia, Pennsylvania during August 1-6, 2020. The LiDS Program Committee is soliciting proposals for an invited session and two topic-contributed sessions for the 2020 JSM. An invited session can include two to six participants with variety formats. The online submission of invited session proposals was open on May 1, 2019 and will close on September 5, 2019. In addition, LiDS can submit up to two proposals for the 24 additional invited sessions that are open for competition among the ASA Sections, Interest Groups, the Leadership Support Council, and the Council of Chapters. A topic-contributed session must have five presentations (including discussants). The online submission of topic contributed session proposals will open on November 12, 2019 and close on December 10, 2019. The regular contributed abstract submission will open on December 3, 2019 and close on February 4, 2020, and a draft manuscript must be received by May 15, 2020.

All invited session proposals should be submitted via the online submission process from July 18 to September 5, 2019 at <http://www2.amstat.org/meetings/jsm/2020/submissions.cfm>. This period will be the only opportunity to submit invited session proposals. The following information is needed:

- Session type (invited)
- Sub-type (e.g., papers or panel)
- Sponsor (ASA Sections, Committee, Journal, Chapter, IMS, ENAR, WNAR, SSC, ICSA, IISA, or Outside Society). Choose from the list of sponsors. Please select “Lifetime Data Science Section” as the sponsor, and a maximum of 2 additional potential sponsors can be selected.
- Title of Session
- Brief session description and information for each presenter (title of presentation, name, affiliation, address, phone, email, names of co-authors). Abstracts are NOT required for submission at this time.
- Theme (yes or no) - Designate if the session has topics relevant to the JSM theme.
- Applied (yes or no) - Designate if the session has topics relevant or will have special appeal to applied statisticians.
- Estimated audience size — Please select the estimated audience size that the session will attract.
- Organizer (name, affiliation, address, phone, email).
- Chair (name, affiliation, address, phone, email).
- Discussants (name, affiliation, address, phone, email).

For further details, please contact 2020 LiDS Program Chair Dr. Zhezhen Jin ([zj7@cumc.columbia.edu](mailto:zj7@cumc.columbia.edu)). The deadline for submission of invited session proposals is September 5, 2019.

*Zhezhen Jin*, Program Chair 2020

## New Articles from Lifetime Data Analysis

The July 2019 issue (Volume 25, number 3) of *Lifetime Data Analysis* has been published. The journal can be accessed at

<https://link.springer.com/journal/10985>.

- Dealing with death when studying disease or physiological marker: the stochastic system approach to causality *by* Daniel Commenges. Pages 381-405
- What price semiparametric Cox regression? *by* Martin Jullum, Nils Lid Hjort. Pages 406-438
- Improved precision in the analysis of randomized trials with survival outcomes, without assuming proportional hazards *by* Iván Díaz, Elizabeth Colantuoni, Daniel F. Hanley. Pages 439-468
- Weighted estimation for multivariate shared frailty models for complex surveys *by* Jing Wang. Pages 469-479
- Proportional cross-ratio model *by* Tianle Hu, Bin Nan, Xihong Lin. Pages 480-506
- Semiparametric sieve maximum likelihood estimation under cure model with partly interval censored and left truncated data for application to spontaneous abortion *by* Yuan Wu, Christina D. Chambers, Ronghui Xu. Pages 507-528
- Hidden three-state survival model for bivariate longitudinal count data *by* Ardo van den Hout, Graciela Muniz-Terrera. Pages 529-545
- Copula-based score test for bivariate time-to-event data, with application to a genetic study of AMD progression *by* Tao Sun, Yi Liu, Richard J. Cook, Wei Chen, Ying Ding. Pages 546-568
- An improved variable selection procedure for adaptive Lasso in high-dimensional survival analysis *by* Kevin He, Yue Wang, Xiang Zhou, Han Xu, Can Huang. Pages 569-585

*Mei-Ling Ting Lee*, Editor-in-Chief, Lifetime Data Analysis

## Request for Proposals for Hosting the 2021 Lifetime Data Science Conference



The recent second Conference on Lifetime Data Science “Foundations and Frontiers” was recently held at the University of Pittsburgh — please see the conference report in this newsletter. The purpose of this note is to encourage proposals from institutions interested in hosting a three-day event which we plan to hold in May or June 2021. Proposals should be 2–3 pages and provide information on:

- a list of members of a possible Local Arrangements Committee
- information on rooms for plenary sessions and the number of rooms for parallel sessions
- possible dates (Wednesday to Friday)
- audiovisual equipment
- proposed locations for reception and banquet
- local accommodations
- facilities for website development and promotion
- local map

Please consider submitting a proposal to Nicholas P. Jewell ([nicholas.jewell@lshtm.ac.uk](mailto:nicholas.jewell@lshtm.ac.uk)). Those received by October 1, 2019 will be reviewed and the Board will decide which to pursue by November 1, 2019.

*Nicholas P. Jewell*, Chair-Elect