

LiDS Newsletter

Volume 6, Number 1 – January 2021

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In Brief

LiDS Webinar in January

Tuesday, January 26, 2021
at 12–2pm ET

LiDS Webinar and Short Courses in April

Competing Risks, High Dimensional Survival Data, and Causal Inference with Survival Data

2021 Election Candidates

Chair-Elect, Secretary, Program Chair-Elect, and Section Representative

LiDS Sessions at 2021 JSM

Two invited sessions and two topic-contributed sessions

2021 LiDS Conference

Canceled due to the COVID-19 pandemic

2023 LiDS Conference

May 31–June 2, 2023 in Raleigh, North Carolina

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LiDS Officers

Chair:	Mimi Y. Kim
Chair-Elect:	Douglas Schaubel
Past Chair:	Nicholas P. Jewell
Secretary 2019–2021:	Joan Hu
Treasurer 2021–2023:	Yu Cheng
Program Chair (2021):	Haoda Fu
Program Chair-Elect:	Jing Ning
Past Program Chair:	Zhezhen Jin
COS Representative:	Xiaonan Xue
Webmaster:	Ker-Ai Lee
Newsletter Editor:	Wenjie Wang

Chair’s Message



It is an honor and privilege to serve as the 2021 Chair of the American Statistical Association Lifetime Data Science (LiDS) Section. The past year was eventful to say the least, between a public health crisis, record setting wildfires, social unrest, and a presidential election. And, although we are hopeful that the new year will be better, uncertainties persist in our professional and personal lives due to the COVID-19 pandemic. What is undoubtedly clear, however, is how critical the expertise and work of our statistical community have been for addressing some of these challenges, whether

in developing vaccines and treatments, modeling the spread of disease, or assisting medical centers with projecting health care burden. Statistics organizations such as ours have also been essential for disseminating key scientific findings to researchers and the public, as well as facilitating access to relevant expertise and resources.

The ASA LiDS section is beginning its third year as an official section and has grown to include over 440 members, a strong indication of the continuing interest in statistical methods for studying life history processes, and the relevance of these methods to advancing our knowledge in different fields and professional sectors. This remarkable achievement over such a short period of time would not have been possible without the vision, enthusiasm and combined efforts of the section’s members and officers, as well as the outstanding leadership of the past LiDS Chairs: Nicholas Jewell, Jianwen Cai, Richard Cook, Mei-Cheng Wang, Jack Kalbfleisch, Mei-Ling Ting Lee and Ross Prentice. It will not be easy to follow in the footsteps of this extraordinary group of statisticians! I am particularly grateful for Nick’s sound and steady leadership of the section last year while he was working around the clock on COVID issues and dealing with other fires, both figuratively and literally. I have also admired and hope to emulate his strong commitment to promoting diversity and inclusion in all facets of life.

In addition, I feel so fortunate to have had the opportunity to work with Jianwen Cai who just completed a three-year term on the executive committee. Jianwen was the Chair of LiDS during its inaugural year as an official ASA section, was co-Program Chair of the very successful 2019 LiDS conference in Pittsburgh, and was incredibly generous as LiDS past-Chair in sharing her vast knowledge, wisdom and experience with us. I learned so much from her thoughtful decision making and meticulous approach to everything she does. Other dedicated members of the executive committee who are stepping down this year are our long serving Treasurer, Chiung-Yu Huang, who did an excellent job overseeing our finances; Past Program Chair, Guoqing Diao, who successfully organized several LiDS sponsored scientific sessions and student award competitions; and Newsletter Editor Jun Yan who kept us so well informed of section activities. I am also very grateful to Richard Cook, the 2018 Chair, for his encouragement and guidance over the past year, especially with regard to the planning and decisions surrounding the 2021 LiDS conference.

The LiDS officers, members of the scientific program committee, and local co-chairs, Shanshan Zhao and Wenbin Lu, had devoted substantial time and effort earlier last year to developing a stimulating program of invited sessions, keynote talks, and short courses for the 2021 LiDS conference. The conference unfortunately had to be canceled due to COVID, but we will be launching instead a series of LiDS

sponsored webinars and virtual short courses on topics that were deemed to be of greatest interest to section members from a recent survey: machine learning and high dimensional survival data, causal inference, and competing risks. Additional details about these events are provided in this newsletter. A huge thanks to Ying Ding and Shanshan Zhao, co-chairs of the new webinar committee, for taking the lead in organizing these events, and to the speakers and instructors for their willingness to offer these continuing education opportunities to the ASA community.

In the coming year, we also plan to maintain a strong presence at JSM by organizing several invited and contributed sessions, as well as offering student paper awards for the 2021 JSM conference — sincere thanks to Haoda Fu, 2021 Program Chair, and Zhezhen Jin, 2020 Program Chair, for their organizing efforts. In addition, we will begin to lay the groundwork later in the year for what we hope will be an in-person LiDS conference in 2023 at the Marriott City Center in Raleigh, North Carolina.

I look forward to getting to know and working with the new members of the Executive Committee, Douglas Schaubel who is Chair-elect, Jing Ning who is Program Chair Elect, Yu Cheng who is Treasurer, and Wenjie Wang who is our Newsletter Editor. I would also like to acknowledge the continuing hard work and dedication of our Secretary, Joan Hu, and Council on Sections representative, Xiaonan Xue, both of whom are starting their third year of service for LiDS. Ker-Ai Lee has also been so helpful over the past year with maintaining our LiDS website.

In a world that is increasingly complex and data focused, the development and application of lifetime data methods have never been more important in helping us to understand and develop solutions to global problems. Given the immense enthusiasm, talent and dedication of the LiDS officers and members, I am optimistic that together we can build on the successes achieved over the past several years, and continue to grow in size, influence and impact as an ASA section. But to achieve this in an environment with limited opportunities to interact and network in person, we need to make a concerted effort to stay connected and be in regular communication with each other. I hope you will take advantage of the LiDS-sponsored activities that will be offered this year, remember to renew your section membership, and encourage others to join as well. Please feel free to email me at: mimi.kim@einsteinmed.org with your ideas and suggestions for how the ASA LiDS section can better meet your needs and interests.

Best wishes for the New Year,
Mimi Kim, Chair 2021

Message from the Past Chair

Happy New Year with fervent hopes that this year is much better than the last — 2020 was quite a year to serve as Chair of the LiDS Section! Despite the challenges it has been a wonderful experience to work with, and receive the support, of an exceptional Executive Committee (EC) over the past twelve months. The commitment of this group has been extraordinary in the face of the unprecedented impact of the COVID-19 pandemic.

I specifically want to express my thanks for the kind wisdom and tireless encouragement of Past-Chair, Jianwen Cai, and the enthusiasm and energy of Chair-Elect, Mimi Kim. I could not

have survived this year without their extraordinary efforts. The Section is in very good hands with Mimi who is full of creative ideas, is extremely organized, and who will be an inspiring leader! We are very fortunate to have her at the helm.



In addition to Jianwen leaving the EC this year, I also want to express my appreciation to Chiung-Yu Huang who completed her “longer-than-usual” term as Treasurer—she has played a central role in the financial interests of the Section during our transition from an interest group. Due to her careful and conscientious work, the Section is in very good financial shape entering 2021. In addition, the EC is saying farewell to Guoqing Diao

who most recently served as Past-Program in Chair in 2020. We have all benefited from Guoqing’s work to bring us stimulating conference sessions over the past few years.

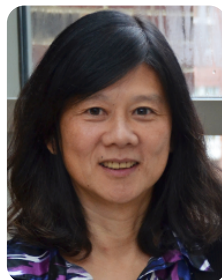
The EC now welcomes Yu Cheng who will serve as Treasurer from 2021–2023, and Jing Ning who will serve as Program Chair-Elect next year. Finally, congratulations to Doug Schaubel who was elected as 2021 Chair-Elect. We are honored and privileged to have the service of these dedicated colleagues.

This newsletter contains more details regarding the postponement of the 2021 Conference on Lifetime Data Science — Advances in Survival Analysis: Making an Impact in the Era of Data Science that was originally planned for Raleigh, North Carolina. As Co-Chair of the Program Committee, Mimi did an enormous amount of work to guide us through our negotiations regarding postponement. I also want to thank Steve Porzio (Associate Executive Director and Director of Operations at the ASA) for his efforts in working with the conference hotel. The important thing for us all now is to hold the tentative dates for the 2023 conference in your calendar: May 31-June 2, 2023 at the Raleigh Marriott City Center in Raleigh, North Carolina. Please stay tuned for further details in the year ahead.

Despite the disappointment of not having the conference this year, we have an exciting series of webinars being planned for 2021. The first is coming up immediately on January 26, 2021, 12–2pm EST when Noah Simon will present on Statistical Learning with Time-to-Event Outcome. You can still register at the following link: <https://www.amstat.org/ASA/Education/Web-Based-Lectures.aspx>. This will be a very exciting event and the beginning of a wonderful series of such webinars.

Nicholas P. Jewell, Chair 2020

2021 Election Candidates



This year we have a number of positions open on the Executive Committee of the Section on Lifetime Data Science including Chair-Elect, Secretary, Program Chair-Elect, and Council of Section Representative (COS Rep). We are in the fortunate position of having a very strong slate of candidates who have agreed to stand for election. They are as follows:

Chair-Elect

Ingrid Van Keilegom, KU Leuven, Belgium

Grace Yi, University of West Ontario, Canada

Secretary

Tanya Garcia, University of North Carolina at Chapel Hill
Sharon Xie, University of Pennsylvania

Program Chair-Elect

Ying Ding, University of Pittsburgh
Pamela Shaw, University of Pennsylvania

COS Rep

Rui Wang, Harvard University
Ronghui Xu, University of California-San Diego

American Statistical Association will handle the election process and we will hear more about the candidates including their biographies and personal statements in the coming weeks. On behalf of the LiDS Nomination Committee comprised of Guoqing Diao, Jing Qin, and myself, sincere thanks to the membership for participating in the nomination process, and to the candidates for their commitment to the section and willingness to consider these leadership positions.

Jianwen Cai, Nomination Committee Chair 2021

Report from the Section Secretary



The ASA-LiDS section has entered its third year, with over 440 members. The link of our official webpage is <https://community.amstat.org/lids/home>. Many thanks to Ker-Ai Lee (ka21ee@uwaterloo.ca) for her creating and maintaining the webpage.

The section's 2020 annual meeting took place virtually on August 14, 2020. It was chaired by the section chair Nick

Jewell, and over 50 section members attended the meeting. Matthew Amboy, the Editor of Lifetime Data Analysis, presented the Springer Awards for LIDA at the meeting. The section congratulated its two (2) newly elected IMS fellows and eleven (11) 2020 ASA fellows, and Mei-Ling Lee for receiving 2020 ASA Award for Outstanding Section Service. The meeting attendees discussed at some length about what format to use for LiDS 2021. It has been decided to postpone the section's conference to 2023 due to the COVID-19 pandemic.

We thank Jun Yan for being the editor of LiDS Newsletter in the past five years. Welcome the new editor Wenjie Wang on board!

There are/will be a lot going on with the section. We invite you to become a section member, to participate in the section's various activities, and to serve on the section associated committees in 2021.

Joan Hu, Secretary 2019–2021

JSM 2021 Program Update

The 2021 Joint Statistical Meetings (JSM) will be held in Seattle, Washington during August 7–12, 2021. Despite that the details of the JSM 2021 Program is not yet fully decided, we have decided two invited sessions sponsored by LiDS. They are



1. Tuesday, August 10, 8:30–10:20am: “New machine learning tools for mobile health data and individual intervention”;
2. Wednesday, Aug 11, 2:00–3:50pm: “Causal, Robust and Machine Learning for Survival Outcomes”.

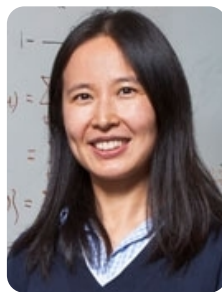
We also recommended the following two topic contributed sessions sponsored

by LiDS:

1. “Lifetime Data Science Student Awards”;
2. “Estimands in Oncology: Papers from an Industry Working Group”.

Haoda Fu, Program Chair 2021

Treasurer's Report



As stated in the earlier report by our former treasurer Dr. Chiung-Yu Huang, the balance by May 31, 2020 was \$42,984.87. During the period between June 1, 2020 and December 31, 2020, the LiDS spent \$4,800 on awards/plaques for JSM. The additional income from membership dues and interest was \$344.09 during this time period. The current balance by December 31 is \$38,528.96.

Beginning Balance	5/31/2020	\$42,984.87
Income		
Membership due and interest		\$344.09
Total Income		\$344.09
Expense		
Awards/plaques for JSM		\$4,800.00
Total Expense		\$4,800.00
Ending Balance	12/31/2020	\$38,528.96

Yu Cheng, Treasurer 2021–2023

LiDS Conference Update



The 2021 LiDS Conference has been canceled due to the COVID-19 pandemic. This was a difficult but necessary decision made by the executive committee given the ongoing uncertainty in travel restrictions and our concerns about the safety of conference participants. We regret that the event cannot be held as planned and are grateful to all the members of the Scientific Program Committee who had

organized sessions and to the individuals who had agreed to give short course and keynote talks for the conference.

The next LiDS conference will be held in 2023 at the Raleigh Marriott City Center in Raleigh, North Carolina. Planning

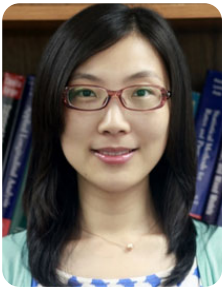
for the 2023 LiDS conference planning will get underway sometime later this year with assistance from the local Co-Chairs, Shanshan Zhao and Wenbin Lu.

Mimi Kim, Chair 2021

LiDS Webinars and Short Courses in 2021



We are very pleased to announce a new LiDS webinar and short course series that will be launched in 2021. Dr. Noah Simon (University of Washington) will kick off the series as the speaker for the first webinar scheduled for January 26th, 12–2pm (ET). The topic is “Statistical Learning with Time-to-Event Outcome”. Dr. Simon will discuss techniques for analyzing high dimensional data, as well as methods appropriate for data of more modest dimension with larger numbers of observations. He will introduce modern software packages for statistical learning in these contexts and also validation of these predictive models. In addition, he will touch on deep learning with time-to-event data.



Registration for this webinar is at: <https://community.amstat.org/lids/home>. The fee is \$20 for ASA members, \$15 for ASA student members, and \$35 for non-members, and the deadline for registering is Monday, January 25, 2021 at 12:00 p.m. (ET).

In April, a second LiDS webinar on Competing Risks will be presented by Dr. Douglas Schaubel (University of Pennsylvania). Two half-day short courses will also be offered later in the year on High Dimensional Survival Data (Instructor: Dr. Yi Li, University of Michigan) and Causal Inference with Survival Data (Instructor: Dr. Stijn Vansteelandt, Ghent University, Belgium). Further details about these events will be available in future LiDS communications.

Shanshan Zhao & Ying Ding
LiDS Webinar Committee Co-Chairs

New Articles from Lifetime Data Analysis



Lifetime Data Analysis is the only journal dedicated to statistical methods and applications for lifetime data. The journal advances and promotes statistical science in various applied fields that deal with lifetime data, including actuarial science, economics, engineering, environmental sciences, management, medicine, operations research, public health, and social and behavioral sciences. The journal can

be accessed at <https://link.springer.com/journal/10985>.

The January 2021 issue (Volume 27, number 1) of Lifetime Data Analysis has been published:

- The added value of new covariates to the brier score in Cox survival models *by* G. Heller. Pages 1–14
- Accelerated failure time model for data from outcome-dependent sampling *by* J. Yu, H. Zhou, & J. Cai. Pages 15–37
- Left-censored dementia incidences in estimating cohort effects *by* R. Weißbach, Y. Kim, A. Dörre, A. Fink, & G. Doblhammer. Pages 38–63
- Joint modeling of longitudinal continuous, longitudinal ordinal, and time-to-event outcomes *by* K. Alam, A. Maity, S. K. Sinha, D. Rizopoulos, & A. Satter. Pages 64–90
- EM algorithm for the additive risk mixture cure model with interval-censored data *by* X. Wang, & Z. Wang. Pages 91–130
- Firth adjusted score function for monotone likelihood in the mixture cure fraction model *by* F. M. Almeida, E. A. Colesimo, & V. D. Mayrink. Pages 131–155
- A dependent Dirichlet process model for survival data with competing risks *by* Y. Shi, P. Laud, & J. Neuner. Pages 156–176
- Semi-parametric survival analysis via Dirichlet process mixtures of the First Hitting Time model *by* J. A. Race, & M. L. Pennell. Pages 177–194

Articles in the October 2020 issue (Volume 26, number 4) are:

- Cumulative risk regression in case-cohort studies using pseudo-observations *by* E. T. Parner, P. K. Andersen, & Morten Overgaard. Pages 639–658
- Semiparametric regression and risk prediction with competing risks data under missing cause of failure *by* G. Bakoyannis, Y. Zhang, C. & T. Yiannoutsos. Pages 659–684
- Estimation of treatment effects and model diagnostics with two-way time-varying treatment switching: an application to a head and neck study *by* Q. Chen, F. Zhang, M. H. Chen, & X. J. Cong. Pages 685–707
- Semiparametric efficient estimation for additive hazards regression with case II interval-censored survival data *by* B. He, Y. Liu, Y. Wu, & X. Zhao. Pages 708–730
- Analysis of the time-varying Cox model for the cause-specific hazard functions with missing causes *by* F. Heng, Y. Sun, S. Hyun, & P. B. Gilbert. Pages 731–760
- Nonparametric and semiparametric estimators of restricted mean survival time under length-biased sampling *by* Y. He, & Y. Zhou. Pages 761–788
- Generalized mean residual life models for case-cohort and nested case-control studies *by* P. Jin, A. Zeleniuch-Jacquotte, & M. Liu. Pages 789–819
- Statistical analysis of clustered mixed recurrent-event data with application to a cancer survivor study *by* L. Zhu, S. Choi, Y. Li, X. Huang, J. Sun, & L. L. Robison. Pages 820–832
- Subtleties in the interpretation of hazard contrasts *by* T. Martinussen, S. Vansteelandt, & P. K. Andersen. Pages 833–855
- Measuring the temporal prognostic utility of a baseline risk score *by* S. M. Devlin, M. Gönen, & G. Heller. Pages 856–871
- Extensions of the absolute standardized hazard ratio and connections with measures of explained variation and variable importance *by* M. R. Crager. Pages 872–892
- Correction to: Nonparametric estimators of survival function under the mixed case interval-censored model with left truncation *by* P. S. Shen. Pages 893–894

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