



Lifetime Data Analysis Interest Group

LIDA Newsletter

Volume 2, Number 1 – January 2017

An interest group associated with the American Statistical Association

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In Brief

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Our website is:

<http://community.amstat.org/lifetime-data-analysis-lida-interest-group/home>.

Published newsletters are archived under "Library".

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Workshops/Conferences

A conference sponsored by LIDA-IG will be held at the University of Connecticut.

Title: Data Science, precision medicine and risk analysis with lifetime data

Dates: May 25–27, 2017.

The 2017 ICSA China Conference with the Focus on Lifetime Data is jointly sponsored by the LIDA-IG and will be held at Jilin University, China, July 2–5, 2017.

The LIDA-IG will sponsor several sessions at the Joint Statistical Meetings in Baltimore, July 28–Aug 4, 2017.

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Election Results

Dr. Richard Cook became Chair-elect on January 1, 2017.

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Membership in the LIDA-IG

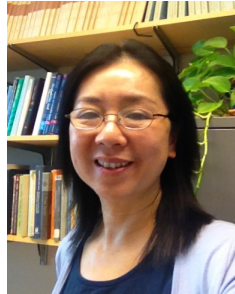
If you have an interest in life history data you are invited to join.

Membership forms can be found on our website.

LIDA Officers

Chair:	Mei-Cheng Wang
Chair-Elect:	Richard Cook
Past Chair:	Jack Kalbfleisch
Secretary 2016-2017:	Jonathan Siegel
Treasurer 2016-2017:	Chiung-Yu Huang
Program Chair (2017):	Bin Nan
Program Chair (2018):	Yu Shen
Webmaster:	Weiliang Qiu
Newsletter Editor:	Jun Yan

Chair's Message



I am honored to take the Chair position of the Lifetime Data Analysis Interest Group (LIDA-IG) for 2017. The interest group has grown substantially in the past two years under the leadership of Jack Kalbfleisch and Mei-Ling Ting Lee. The objective of the Interest Group is to promote and support the development, application and appropriate use of statistical methods for design and analysis of lifetime data and time-to-event data. In pursuing these objectives, the Interest Group plans to (i) hold its own conference every two or three years, (ii) regularly and actively organize invited and topic-contributed sessions at JSM and possibly other major statistical conferences, and (iii) work closely with other Sections and Interest Groups of the ASA via appropriate formats.

The interest group operates under the rules of the Committee on Sections of the American Statistical Association and has the aim to officially become a Section of the ASA. To join the LIDA-IG, there is no requirement of ASA membership though everyone is encouraged to register as an ASA member. If you have colleagues, students or post-docs with a strong interest in life history or time-to-event data, please let them know of this initiative and invite them to join. Information on joining can be found on our website, which is part of the ASA web site: <http://community.amstat.org/lifetime-data-analysis-lida-interest-group/home>.

Thanks for your support of this interest group!

Mei-Cheng Wang, Chair 2017

Message from the Past Chair



The past year has seen much in the way of the development of the Lifetime Data Analysis Interest group (LIDA-IG). This is due to the efforts of many people. We currently have approximately 240 members with substantial room still for growth. The LIDA-IG will sponsor at least three sessions at the Joint Statistical Meetings (JSM) in Baltimore this August and will sponsor a major conference in May. We are also a joint sponsor of the International Chinese Statistical Association conference in Jilin, China to be held this summer. The LIDA-IG has developed a Charter that will easily morph

into a Charter for the LIDA Section when we are able to make that step. The Charter is available for review on our web site, and I encourage you to have a look. The LIDA-IG had a very successful Annual General Meeting at the Joint Statistical Meetings in Chicago last August. I was unable to attend, due to celebration of a half century of married life, but I understand that the meeting had over forty attendees and very good discussions on many points of interest. Thanks go to Mei-Ling, Mei-Cheng Wang and Jonathon Siegel, for organizing and managing the meeting.

As mentioned above and reported in more detail elsewhere in this Newsletter, there will be an important conference “Precision Medicine and Risk Analysis with Lifetime Data” to be held at the University of Connecticut, Storrs, CT. The program has been organized by Mei-Cheng Wang together with a large program committee. Drs. Ming-Hui Chen and Jun Yan from the University of Connecticut are managing the local arrangements. It will be an excellent program, and I encourage all those interested in lifetime data analysis to attend.

The LIDA-IG had its first election in 2016. We were very fortunate to have two outstanding candidates, Dr. Richard Cook of the University of Waterloo and Dr. Ruth Pfeiffer from NIH, and I want to thank both of them for allowing their names to stand. With over eighty votes cast, Richard Cook becomes Chair-Elect on January 1, 2017 and will serve as Chair in 2018. On behalf of the membership, I want to congratulate Richard; we look forward to working with him. I am also pleased to note that neither candidate was under investigation by the FBI and that no-one associated with the election had their email hacked by a foreign power.

As Past-Chair, I will be organizing the second elections in the fall of 2017; a small nominating committee will propose a slate of individuals to serve as Chair-Elect, Secretary and Treasurer, for 2018. I would be happy to hear of anyone who would like to be nominated for any of these positions and would take the name forward to the nominating committee.

As an interest group associated with the American Statistical Association (ASA) we report to the Committee on Sections (COS). We are currently an Interest Group only, but will be able to apply for full section status during the fall of 2017, with a decision to be made at the annual COS meeting associated with the JSM in August of 2018. In the meantime, however, we can carry out most of the functions of a section. In the September issue of the *Amstat News*, there was an article on Interest Groups, in which the LIDA-IG played prominently. See <http://magazine.amstat.org/blog/2016/11/01/asa-interest-groups-interested/>. Recently, the COS has introduced a number of very welcome changes to further the work of the interest groups. Specifically, they plan to make available a special allocation of up to \$1000 per year to each interest group, with the detailed mechanism for applying for these funds yet to be determined. There has also been agreement that interest groups may obtain status as charitable organizations. These developments will allow us to raise some additional funds through organizing conferences or workshops or through donations. We could invest such funds in various ways to promote research and education in the theory and applications of lifetime data analysis.

I have very much enjoyed working with Mei-Cheng and Mei-Ling as Chair-Elect and Past-Chair over the past year. The LIDA-IG has been very well served by the outstanding efforts of Jonathon Siegel as Treasurer and Doug Schaubel and Bin Nan as Program Chairs. It has also been a pleasure to work with Dr. Weiliang Qiu as web master and Dr. Jun Yan as editor of the Newsletter.

I have heard it remarked that Lifetime Data Analysis may be too restrictive a topic for an ASA section. On reviewing the sessions at the conference to be held in June and the number and variety of sessions on lifetime data at national and international meetings, I think that this is clearly an area of sufficient interest, breadth and importance in the statistical sciences. I am confident

that the LIDA-IG will continue to thrive under the leadership of our new Chair, Mei-Cheng Wang and Chair-Elect, Richard Cook. Please pass on this newsletter to anyone you know who might be interested in joining the LIDA-IG.

Finally, I want to wish all members of the LIDA-IG a very healthy and happy new year.

Jack Kalbfleisch, Past Chair

Elections 2016 Results



In the LIDA-IG's first election in 2016, Dr. Richard Cook was elected Chair-Elect effective January 1, 2017, and will serve as Chair in 2018.

Dr. Cook is Professor of Statistics in the Department of Statistics and Actuarial Science at the University of Waterloo and Tier I Canada Research Chair in Statistical Methods for Health Research. He holds a cross-appointment to the School of Public Health and Health Systems (UW), is an Affiliate Scientist at the PROPEL

Centre for Population Health Impact (UW), and holds a part-time appointment in the Faculty of Health Sciences at McMaster University. His research interests include the analysis of life history data, the design and analysis of clinical and epidemiological studies, and statistical methods for incomplete data. He collaborates extensively with other scientists working in rheumatology, oncology and transfusion medicine. He co-authored the book *The Statistical Analysis of Recurrent Events* (Springer) with Jerry Lawless in 2007. He is currently Associate Editor for *Biometrics*, *Statistics in Medicine*, the *Canadian Journal of Statistics* and *Statistics in Bioscience*. In 2007 he was the recipient of the CRM-SSC Prize and he was elected Fellow of the American Statistical Association in 2008.

Thank You to Mei-Ling Ting Lee



We have been very fortunate to have Mei-Ling Ting Lee as a very strong and committed advocate for the LIDA-IG. It was largely her efforts that began the interest group about three years ago as she promoted sessions at the JSM that were sponsored by the LIDA-IG and went about building a body of support. In these efforts, she was also aided by Professor Ross Prentice. In 2015, Mei-Ling became the

first Chair of the LIDA-IG and has been closely involved in all developments ever since. As many of you know, Mei-Ling is a Professor of Epidemiology and Biostatistics at the University of Maryland's School of Public Health. She is also Director of the Biostatistics and Risk Assessment Center and, of course, also serves as the continuing and founding editor-in-chief of the journal, *Lifetime Data Analysis*. She has been recognized for her research and professional contributions through many awards including Fellow of the American Statistical Association and the Institute of Mathematical Statistics. In addition to her work in the LIDA-IG, Mei-Ling has also been very active in



Figure 1: (From left) Gang Li and Xin Huang, authors of the top-cited paper of *Lifetime Data Analysis* published in 2011–2015, with Michael Penn from Springer and Mei-Ling Ting Lee.



Figure 2: Participants at the 1st annual general meeting at the JSM 2016, Chicago.

the International Chinese Statistical Association, where she also served as President in 2016. Thanks, Mei-Ling, for all that you have done for us in the past. We also count on your continued involvement.

Jack Kalbfleisch, Past Chair

Report from the Annual General Meeting at the JSM 2016



As an interest group within the American Statistical Association, LIDA-IG holds its annual business meeting during the Joint Statistical Meetings conference. Our meetings are listed in the JSM program. This year we held it at JSM in Chicago on Tuesday, August 2.

We had about 39 attendees, more people than had been expected, and had to bring in additional chairs.

Our Chair, Jack Kalbfleisch, wasn't able to attend – it was his 50th wedding anniversary. Our past chair, Mei-Ling Ting Lee, opened the meeting and provided introductory remarks. She noted that our first chair, Ross Prentice, was also celebrating his 50th wedding anniversary, one week after Jack's. It was tempting to think of long lasting marriage as a potential benefit of being LIDA-IG members. (Later, it was revealed that both couples lived in the same apartment building in Waterloo, Ontario in their first year of marriage.)

Jonathan Siegel, our secretary, provided an introduction to LIDA, explained our charter and the process of getting it approved within ASA, explained our discussions within the ASA Council of Sections about upgrading to section status, and provided a membership report. We reported 185 verified ASA members and 47 other members.

Jonathan discussed the Fall elections. Elections are run through ASA. This years elections focused on the 2017 chair-

elect who will become chair in 2018. The Secretary and Treasurer (Jonathan Siegel and Chiung-Yu Huang) ran unopposed. The election took place by on-line ballot between September and November of 2016, with new officers including Richard Cook, our new chair-elect, taking office on January 1 2017.

Ming-Hui Chen discussed our upcoming conference on Lifetime Data Science at the University of Connecticut in Storrs, CT, May 25-27.

Bin Nan spoke about the opportunities available for providing sessions and presenting papers at JSM through LIDA. LIDA receives one topic contributed session and can apply for one of a pool of invited sessions that are awarded competitively.

Michael Penn of Springer presented the Lifetime Data Analysis awards for best 2015 articles in the Lifetime Data Analysis journal published by Springer. The top downloaded article in 2015 was “Parameter Inference from Hitting Times for Perturbed Brownian Motion” by Massimiliano Tamborrino, Susanne Ditlevsen, and Peter Lansky, Vol. 21 Issue 3 (July 2015). The top-cited article published in 2011–2015 was “A General Joint Model for Longitudinal Measurements and Competing Risks Survival Data with Heterogeneous Random Effects” by Xin Huang, Gang Li, Robert M. Elashoff, and Jianxin Pan, Vol. 17 Issue 1 (January 2011); see Figure 1.

Jun Yan discussed our newsletter and website.

Chiung-Yu Huang gave a brief treasurers report. Interest Groups do not normally have treasurers or handle their own funds, but we created the position to support our activities, especially the upcoming LIDA conference. The University of Connecticut has agreed to handle the finances for this conference.

Stacey Lindborg, Vice Chair of the ASA Council of Sections, explained our status and the process of affiliating with the ASA from the Council of Sections point of view, and answered questions from the floor.

Our meeting was adjourned, with an opportunity to socialize (Figure 2).

Jonathan Siegel, Secretary

LIDA Charter and Section Status

LIDA is an Interest Group within the ASA, under the aegis of the ASA Council of Sections. As an interest group, we get certain privileges within ASA including sponsoring our own topic-contributed session at JSM, having a non-voting representative at Council of Sections meetings, and receiving ASA assistance and facilities for our annual meeting at JSM, elections, and other activities. An interest group is open to anyone.

We are seeking to be a section within ASA. A section has additional abilities including collecting annual dues assessed along with ASA membership fees, using ASA bank accounts and accountants to handle money, sponsoring invited sessions at JSM, and other features.

We organized in 2014 and first applied for section status at the JSM Council of Sections (COS) annual meeting in 2015. Ross Prentice was our initial chair, followed by Mei-Ling Ting Lee as chair for 2015, Jack Kalbfleisch as chair for 2016, and Mei-Cheng Wang as our chair for 2017. At its 2015 annual meeting at JSM, the COS approved new requirements for section status including having at least 200 ASA members and functioning as an Interest Group for at least 3 years. It also created a new template charter and asked us to set up a charter as an interest group and work within the requirements before applying again.

We created a new charter for LIDA and presented it at our annual meeting at JSM in 2016. Our charter provides for elections for chair-elect, secretary, and treasurer, with other offices filled by rotation or appointment by the chair. Our program chair is responsible for conferences and other educational programs. We held our first elections under our charter between September and November of 2016 through ASAs ballot system. Richard Cook was elected as our 2017 Chair-Elect (to become Chair in 2018), and Jonathan Siegel and Chiung-Yu Huang, the 2016 Secretary and Treasurer, were elected for 2017.

In the fall of 2016, the COS asked us to update our charter to reflect additional COS comments. We have revised our charter accordingly for COS approval. We clarified a few details in the charter like how members can send petitions to nominate officers and charter amendments, and our Groups three standing committees, the Executive Committee, the Nominating Committee, and the Program Committee.

This year, the COS is providing additional benefits to Interest Groups including assistance with incorporating as a non-profit and setting up a bank account, annual grants of up to \$1000, additional access to ASA web and community spaces, and communications support.

During 2016, we increased our membership from 166 to 190 verified ASA members and from 25 to 51 non- (or non-verified) ASA members. We expect our upcoming LIDA conference at the University of Connecticut and other activities will bring us over the 200-member threshold and put us in line to apply for section status this year, 3 years after our initial organization.

Jonathan Siegel, Secretary

2017 Conference on Lifetime Data Science, May 25–27, 2017

Program Update A LIDA-IG sponsored conference with focus on lifetime data science has been planned and will be held

at the University of Connecticut, Storrs, Connecticut, on May 25-27, 2017. The conference has the themes to promote and support the development, application and appropriate use of statistical methods for lifetime or time-to-event data in data science, precision medicine and risk analysis.

Two conference keynote speakers are Niels Keiding from the University of Copenhagen and Lee-Jen Wei from Harvard University.

The conference features a rich scientific program of 55 invited sessions focusing on the latest knowledge and innovation related to lifetime and time-to-event data. A wide array of research topics are selected and will be discussed at this conference.

The conference includes a poster competition program which invites submissions from students or post-docs. Three posters will be selected, with prizes, and recognized at the conference. The deadline for poster abstract submission has been extended to March 31, 2017.

The conference also provides an excellent opportunity of learning from four planned short courses, with topics covering the areas of multivariate survival data, biomarkers, personalized medicine, disease prevention and Bayesian survival analysis.

1. Mitchell Gail and Ruth Pfeiffer, Division of Cancer Epidemiology and Genetics, National Cancer Institute: “Absolute Risk and Applications in Disease Prevention” (1/2-day course).
2. Joanna Shih, Biometric Research Program, National Cancer Institute: “Modeling Clustered Failure Time Data with Application to Family/Genetic Studies” (1/2-day course).
3. Xiao-Hua (Andrew) Zhou, University of Washington: “Statistical Methods in Diagnostic and Predictive Medicine” (one-day course).
4. Joseph Ibrahim, University of North Carolina at Chapel Hill: “Applied Bayesian Survival Analysis” (one-day course).

More information can be found at the conference website: <http://merlot.stat.uconn.edu/lida/>.

Jack Kalbfleisch, 2017 Conference Chair

Mei-Cheng Wang, 2017 Conference Program Chair

Travel and Lodging Information Spring is a very good time to visit Connecticut, the southernmost state in the New England area, the third smallest state by area, and the fourth most densely populated of the 50 United States. Connecticut is also known as the “Constitution State”, the “Nutmeg State”, the “Provisions State”, and the “Land of Steady Habits”. There are many attractions to see and interesting things to do in Connecticut; see the official webpage of the Connecticut Office of Tourism at www.ctvisit.com. The average local temperature in May has low 48.1F and high 71.7F.

The nearest airport is Hartford Bradley International Airport (BDL), which is about 45 minutes by driving to UConn at Storrs, CT. Transportation to/from Storrs can be found from <http://iss.uconn.edu/gettingtougconn/>. If you choose UConn Airport Shuttle, you need to make your reservation at least one week in advance. Alternative transportation options are being explored. Fun things going on around campus can be found at <http://summer.studentactivities.uconn.edu/things-to-do-outside-u/>.

Nathan Hale Inn is the conference hotel on campus. A block of room have been reserved for the conference on a first-come

first-serve basis. A block of dorm rooms have also been reserved. Please make your reservations at your earliest convenience.

Two social events have been planned. A mixer will be held concurrently with the poster session during 5:30pm–8:30pm on Thursday, May 25, 2017. The conference banquet is scheduled for 6:30pm–9:30pm on Friday, May 26, 2017.

We look forward to meeting many of you!

Ming-Hui Chen, 2017 Conference Local Co-Chair
Jun Yan, 2017 Conference Local Co-Chair

2017 ICSA China Conference with the Focus on Lifetime Data



The conference, organized by Jilin University, China, and co-sponsored by the LIDA-IG, will be held in Jilin City, Jilin Province, China during July 2–5, 2017. Professor Lee-Jen Wei from Harvard University and Professor Jianqing Fan from Princeton University have kindly agreed to give plenary talks. The conference will cover a wide range of topics in data science, especially lifetime data, and related fields. It will also provide an excellent

venue for scientific exchanges and possible research collaborations.

Jilin City has a long history and many attractions and is pleasant to visit both in the summer and winter. It is the only city in China that shares its name with its province; it has a rich culture with 35 different ethnic groups, and attracts many Chinese and foreign tourists.

You are invited to attend the conference. For more information about the meeting, please see <http://sta.jlu.edu.cn/ic sa-2017/>.

Jianguo (Tony) Sun, ICSA China Conference Chair

JSM Program Update



I would like to thank all the invited session organizers who chose our interest group (LIDA-IG) as either the primary sponsor or a co-sponsor. Since we do not have allocation of invited sessions as an interest group, all the invited session proposals with our interest group as the primary sponsor went to the Leadership Support Council representative on the program committee, who determines which proposals are accepted for the interest group competition slots. Nonetheless,

we had achieved excellent appearance on the 2017 JSM Program with three approved invited sessions jointly sponsored by LIDA-IG:

1. Mon, 7/31/2017, 10:30 AM–12:20 PM, Session 213774, “New Advances in Statistical Methods for Complex Data,” organized by Kevin He with ICSA as the primary sponsor;

2. Tue, 8/1/2017, 2:00 PM–3:50 PM, Session 213853, “Longitudinal/Repeated Measures and Terminal Events,” organized by Bin Nan with LIDA-IG as the primary sponsor;
3. Thu, 8/3/2017, 10:30 AM–12:20 PM, Session 213796, “Joint modeling of longitudinal data, recurrent events and a terminal event,” organized by Xuelin Huang with ENAR as the primary sponsor.

As an interest group, we have allocation of one topic contributed session with an approaching deadline on January 11, 2017. Please consider submitting a proposal with LIDA-IG as one of the sponsors. The details can be found at <https://www.2.amstat.org/meetings/jsm/2017/topiccontributed.cfm>. If you miss the deadline this year, please consider starting early for next year.

Bin Nan, Program Chair 2017

Forthcoming Articles from Lifetime Data Analysis

The January 2017 issue (Volume 23, number 1) of *Lifetime Data Analysis* is a special issue on “Outcome Dependent Sampling”, guest edited by Mei-Cheng Wang and Chiung-Yu Huang.

- Nonparametric and semiparametric regression estimation for length-biased survival data. Yu Shen, Jing Ning, Jing Qin
- Nonparametric estimation in the illness-death model using prevalent data. Bella Vakulenko-Lagun, Micha Mandel, Yair Goldberg
- Recent progresses in outcome-dependent sampling with failure time data. Jieli Ding, Tsui-Shan Lu, Jianwen Cai, Haibo Zhou
- Regression analysis for bivariate gap time with missing first gap time data. Chia-Hui Huang, Yi-Hau Chen
- Acceleration of Expectation-Maximization algorithm for length-biased right-censored data. Kwun Chuen Gary Chan.
- Empirical likelihood method for non-ignorable missing data problems. Zhong Guan, Jing Qin
- Joint modeling of longitudinal and survival data with the Cox model and two-phase sampling. Rong Fu, Peter B. Gilbert

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

Call for Contribution to the Newsletter

Members are invited to submit contributions to the LIDA Newsletter which will be published subject to the approval of the editor and the LIDA-IG Chair. Contributions can be of any form relevant to the interests of the LIDA-IG, including, but not limited to, interesting classroom examples, stimulating problems, controversial issues, outlook on important developments, useful software, practical stories, news items about members or activities, or letters to the editor. Please contact Jun Yan at jun.yan@uconn.edu.

Jun Yan, Newsletter Editor