

STANDING ON THE FRONTIER OF OR/MS/AI RESERCH

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Standing on the frontier of OR research

- **Who are LEADING and ACTIVE in OR societies?**
- **What are good journals?**
- **How to obtain newest Articles**

Who are LEADING and ACTIVE in OR societies?

1, 国际运筹协会

国际性组织（协会）

- [INFORMS](#) - Institute for Operations Research and the Management Sciences
- IFORS - [The International Federation of Operational Research Societies](#)
- SIAM - [Society for Industrial and Applied Mathematics](#)
- EURO - [The Association of European Operational Research Societies](#)
- MathOpt - [Mathematical Optimization Society](#)

地区性组织（协会）

- APORS - [Asia-Pacific Operations Research Society](#)
- [中国运筹学会](#) - Operations Research Society of China

专业的国际协会

- [Stochastic Programming Society](#)

2, 运筹学最高奖项

MOS奖

- [Dantzig Prize](#)被认为数学规划领域最高奖项

[INFORMS Prizes](#)

- [John von Neumann Theory Prize](#)被认为运筹领域最高奖项

3, 运筹学国际学术会议

国际性组织（协会）

[22nd International Symposium on Mathematical Programming](#), MathOpt协会举办的运筹学盛会，优化届三大会议之一，三年一次- 2018, 2021

[IFORS 2017 - 21st Conference of the International Federation of Operational Research Societies](#), 国际运筹协会的大会，三年一次, 2017, 2020

[SIAM Conference on Optimization \(OP17\)](#), 三年一次，优化届三大会议之一，可以申请Student Travel Funding, 2017, 2020

专业的国际协会

[XIV International Conference on Stochastic Programming 2016](#), 三年一次，随机优化会议, 2016, 2019

[ICCOPT - The fifth International Conference on Continuous Optimization](#), 世界连续优化会议，三年一次

3, 运筹学国际学术会议

国际性组织（协会）

INFORMS的会议，运筹学的盛会之一，重头戏是其中的 Annual Meeting 和 Analytics Meeting，主要在美国！

[28th European Conference on Operational Research](#)，欧洲运筹协会的会议，三年俩次。

CTW / CMS

国内协会

[中国运筹学会第十次全国代表大会暨2016年学术交流年会](#)，中国运筹年会，会颁布中国运筹各技术奖项，两年一次，2018,2020

[中国运筹学会金融工程与金融风险管理分会学术年会](#)，一年一次，2019，上海

- **What are good journals?**

4, 运筹学杂志

数学优化TOP杂志

- Mathematical Programming *
- SIAM J. Optimization *
- Mathematics of Operations Research *

运筹学TOP杂志

- Management Science *
- Operations Research *

数理金融TOP期刊

- Mathematical Finance *

综述TOP杂志

- SIAM Review *
- INFORMS Tutorial series *
- Elsevier : Surveys in Operations Research and Management Science

4, 运筹学杂志

数学优化比较好的杂志

- Journal of Optimization Theory and Applications *
- Operations Research Letters *

运筹学比较好的杂志

- European Journal of Operational Research *
- Computers & Operations Research
- Annals of Operations Research

数理金融比较好的期刊

- Finance and Stochastic
- J. Economic and Dynamic Control
- Insurance and Mathematics of Finance
- Quantitative Finance

4, 运筹学杂志

OTHER GOOD JOURNALS which are not that strongly related to our directions

- Omega--international journal of management science
- INFORMS Journal on Computing

其他比较相关的还不错的期刊

- OR Spectrum
- Optimization
- Computational Management Science

4, Marketing杂志

运筹学TOP杂志

- Management Science *
- Operations Research *

Marketing TOP期刊

- Journal of Marketing Research (JMR)
- Journal of Marketing (JM)
- Journal of Consumer Research (JCR)
- Marketing Science (MS) *

Marketing 一般主流期刊杂志

- International Journal of Research in Marketing (IJRM)
- Journal of Consumer Psychology (JCP)
- Journal of the Academy of Marketing Science (JAMS)
- Journal of Retailing (JR)
- Marketing Letters

4, Artificial intelligence 杂志

运筹学TOP杂志

- Management Science *
- Operations Research *

Marketing TOP期刊

- Journal of Marketing Research (JMR)
- Journal of Marketing (JM)
- Journal of Consumer Research (JCR)
- Marketing Science (MS) *

Marketing 一般主流期刊杂志

- International Journal of Research in Marketing (IJRM)
- Journal of Consumer Psychology (JCP)
- Journal of the Academy of Marketing Science (JAMS)
- Journal of Retailing (JR)
- Marketing Letters

Who are LEADING and ACTIVE in ML societies?

1, 国际machine learning协会

国际性组织（协会）

- IEEE
- ACM
- International Machine Learning Society, 国际机器学习学会

地区性组织（协会）

- 中国人工智能学会
- 中国计算机学会

2, 计算机学最高奖项

图灵奖（ACM A.M. Turing Award 被认为人工智能领域最高奖项

- 1969年 Marvin Minsky因“人工智能理论及软件”被授予图灵奖
- 1971年, John McCarthy因提出“人工智能”这一术语并使之成为一个重要的学科领域获得图灵奖
- 艾伦·纽厄尔（Allen Newell）和赫伯特·西蒙（Herbert Alexander Simon），成功地开发了最早的启发式程序“逻辑理论家”和“通用问题求解器”，为人工智能的基本原理打下了基础。
- 1994年 Edward A ("Ed") Feigenbaum、Dabbala Rajagopal ("Raj") Reddy DL Author Profile link 因为开拓了大型人工智能系统的设计和建设获得图灵奖
- 2010年, Leslie Gabriel Valiant 因对众多计算理论（包括PAC学习、枚举复杂性、代数计算和并行与分布式计算）做出了变革性的贡献而获得图灵奖
- 2011年 Judea Pearl因将概率论这一数学工具引入人工智能建模而获得图灵奖
- 2018年, 因Yoshua Bengio、Geoffrey Hinton和Yann LeCun三位深度学习巨头在深度神经网络（DNN）概念和工程上的突破, 使得 DNN 成为计算的一个重要构成, 因而成为图灵奖得主

2, ML学奖项

[吴文俊人工智能科学技术](#)

首届:

- 吴文俊人工智能自然科学奖**12**项
 - 吴文俊人工智能技术发明奖**8**项
 - 吴文俊人工智能科技进步奖**10**项
 - 吴文俊人工智能科技进步奖企业技术创新工程项目**8**项
 - 吴文俊人工智能科技进步奖科普项目**1**项
 - 吴文俊人工智能优秀青年奖**5**项
-
- NIPS最佳论文奖
 - NIPS时间检验奖

3, ML学国际学术会议(best two/ best five)

ICML

ICML 是 International Conference on Machine Learning的缩写，即国际机器学习大会。ICML如今已发展为由国际机器学习学会（IMLS）主办的年度机器学习国际顶级会议。

ICCV2019地址: <https://icml.cc/Conferences/2019>

NeurIPS

原NIPS会议，今年改名为NeurIPS，全称是Neural Information Processing Systems（神经信息处理系统），旨在促进神经信息处理系统在生物学、技术、数学和理论方面的研究交流的顶级会议。

NeurIPS2019地址: <https://neurips.cc/Conferences/2019>

COLT（Computational Learning Theory），机器学习理论研究方面的顶级会议，每年一届，ACM会议的一部分；

AAAI the Association for the Advance of Artificial Intelligence，中文意思是美国人工智能协会。美国人工智能协会的主要学术组织之一

IJCAI: International Joint Conference on Artificial Intelligence。AI最好的综合性会议

4, ML杂志 (best two and others)

JMLR

机器学习研究杂志 (JMLR) 为所有机器学习领域的高质量学术文章的电子和纸质出版提供一个国际论坛, 所有已发表的论文均可在网上免费获得, 纸质杂志每年出版8次, 由麻省理工学院出版社出版。

期刊网址: <http://www.jmlr.org/>

TPAMI

IEEE最重要的学术性汇刊之一。《IEEE模式分析与机器智能汇刊》主要发表有关计算机视觉和图像理解的所有传统领域, 有关模式分析和识别的所有传统领域, 以及机器智能的部分领域的论文, 特别关注用于模式分析的机器学习。;在工程领域里, 有些人甚至把这个刊物的分量和难度比作Nature, Science。

期刊网址: <http://www.computer.org/portal/web/tpami/author>

IEEE Transactions on Knowledge and Data Engineering (TKDE)、ACM Transactions on Knowledge Discovery from Data (TKDD)、IEEE Transactions on Neural Networks and Learning Systems (TNNLS)、Machine Learning

4, ML竞赛

NeurIPS 2021 比赛汇总

BASALT: A MineRL Competition on Solving Human-Judged Tasks

<https://minerl.io/basalt/>

赛题类型: [强化学习](#)

The Benchmark for Agents that Solve Almost-Lifelike Tasks (BASALT) competition aims to promote research in the area of learning from human feedback in order to enable agents that can pursue tasks that do not have crisp, easily defined reward functions.

Diamond: A MineRL Competition on Training Sample-Efficient Agents

<https://www.aicrowd.com/challenges/neurips-2021-minerl-competition>

赛题类型: [强化学习](#)

In the third MineRL Diamond competition, participants continue to develop algorithms which can efficiently leverage human demonstrations to drastically reduce the number of samples needed to solve a complex task in Minecraft.

4, ML竞赛

NeurIPS 2021 比赛汇总

Learning By Doing

<http://learningbydoingcompetition.github.io/>

赛题类型：强化学习

The competition is constructed to readily fit into the mathematical frameworks of all three fields and participants of any background are encouraged to participate.

Machine Learning for Combinatorial Optimization

<https://www.ecole.ai/2021/ml4co-competition/>

赛题类型：组合优化

To that end participants will compete on the three following challenges, each corresponding to a distinct control task arising in a branch-and-bound solver: [producing good solutions](#) (primal task), proving optimality via branching (dual task), and choosing the best solver parameters (configuration task).

How to obtain **newest** Articles

- 1、 Publication list from the Journals
- 2、 On-line First articles
- 3、 How to Find related articles?
- 4、 NEW PAPER ALERTS

How to obtain **newest** Articles

1、 Publication list from the Journals


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1、 SPRINGER ALERTS

EURO Journal on Computational Optimization, Vol. 6, Issue 2 - New Issue Alert

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Jun 12 

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Dear Reader,

We are pleased to deliver your requested table of contents alert for **EURO Journal on Computational Optimization**.

Volume 6 Number 2 is now available online.

In this issue



Original Paper

[Column generation algorithms for bi-objective combinatorial optimization problems with a min–max objective](#)

Christian Artigues, Nicolas Jozefowiez & Boadu M. Sarpong

[» Abstract](#) [» Full text HTML](#) [» Full text PDF](#)

1、 SPRINGER ALERTS

<https://www.springer.com/gp/stay-informed-with-springer-alerts/54290?countryChanged=true>



Journal and book alerts

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1、RESEARCHGATE

☆	ResearchGate	Phd	Vikas Vikram Singh published an article - This week's research fr	Jul 23
☆	ResearchGate	Phd	Jia, a recent chapter cited your research - Jia, a recent chapter c	Jul 20
☆	ResearchGate	Phd	Jia, a researcher you cited is working on a project: Hawkes I	Jul 19
☆	ResearchGate	Phd	Congratulations Jia, you reached a milestone - Jia Liu Your publi	Jul 18
☆	ResearchGate	Phd	Vikas Vikram Singh published an article - This week's research fr	Jul 17
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☆	ResearchGate		Paolo Vanini commented on an article - Paolo Vanini commented on	Jul 13
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☆	ResearchGate	Phd	Xiangxiang Zhu added a new full-text - This week's research fi	Jul 10
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1、RESEARCHGATE

<https://www.researchgate.net/>



A. Pichler

added a preprint






Fractional Risk Process in Insurance

New preprint Aug 2018

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How to obtain **newest** Articles

2、 On-line First articles

2, On-line First Articles

SHORTFALL:

- IT takes 1 or 2 years for formally publication!
- NOT ON-TIME!
- PRE-print version manuscripts

2, On-line First Articles

[Optimization Online](http://www.optimization-online.org/)

www.optimization-online.org/

[Subscribe](#) to the Optimization Online monthly digest.

The screenshot shows a Gmail interface. The browser address bar displays the URL: <https://mail.google.com/mail/u/0/#search/optimization-online+Digest/163c17c635cabe6b>. The search bar contains the text "optimization-online Digest". The email list shows one email with the subject "optimization-online Digest, Vol 79, Issue 1". The sender is "optimization-online-request@lists.discovery.wisc.edu". The email body contains the following text:

Send optimization-online mailing list submissions to optimization-online@lists.discovery.wisc.edu

To subscribe or unsubscribe via the World Wide Web, visit <https://lists.discovery.wisc.edu/mailman/listinfo/optimization-online> or, via email, send a message with subject or body 'help' to optimization-online-request@lists.discovery.wisc.edu

You can reach the person managing the list at optimization-online-owner@lists.discovery.wisc.edu

2, On-line First Articles

[Optimization Online](http://www.optimization-online.org/)

www.optimization-online.org/

Subscribe to the Optimization Online monthly digest.

ROBUST OPTIMIZATION

Etienne de Klerk, Daniel Kuhn, Krzysztof Postek

Distributionally robust optimization with polynomial densities: theory, models and algorithms

http://www.optimization-online.org/DB_HTML/2018/05/6615.html

Viet Anh Nguyen, Daniel Kuhn, Peyman Mohajerin Esfahani

Distributionally Robust Inverse Covariance Estimation: The Wasserstein Shrinkage Estimator

http://www.optimization-online.org/DB_HTML/2018/05/6627.html

Ward Romeijnders, Krzysztof Postek

Piecewise constant decision rules via branch-and-bound based scenario detection for integer adjustable robust optimization

http://www.optimization-online.org/DB_HTML/2018/05/6634.html

STOCHASTIC PROGRAMMING

Christoph Buchheim, Jonas Prunte

K-Adaptability in Stochastic Programming

http://www.optimization-online.org/DB_HTML/2018/05/6613.html

Yunxiao Deng, Junyi Liu, Suvrajeet Sen

Coalescing Data and Decision Sciences for Analytics

http://www.optimization-online.org/DB_HTML/2018/05/6629.html

2, On-line First Articles

<https://arxiv.org/>

The screenshot shows a web browser displaying the arXiv page for the article 'Blockwise Sequential Model Learning for Partially Observable Reinforcement Learning'. The browser's address bar shows the URL 'arxiv.org/abs/2112.05343'. The page header includes the Cornell University logo and a message of gratitude from the Simons Foundation. The breadcrumb trail indicates the article is in the 'Computer Science > Machine Learning' category. The article title is prominently displayed, followed by the authors' names: Giseung Park, Sungho Choi, and Youngchul Sung. A submission date of '10 Dec 2021' is noted. The abstract text begins with 'This paper proposes a new sequential model learning architecture to solve partially observable Markov decision problems...'. On the right side, there is a 'Download:' section with links for 'PDF' and 'Other formats (license)'. Below that, the 'Current browse context:' is shown as 'cs.LG', with navigation links for 'prev', 'next', 'new', and 'recent'. A 'Change to browse by:' section offers 'cs' and 'cs.AI'. At the bottom, a 'References & Citations' section lists 'NASA ADS'.

arXiv.org > cs > arXiv:2112.05343

Computer Science > Machine Learning

[Submitted on 10 Dec 2021]

Blockwise Sequential Model Learning for Partially Observable Reinforcement Learning

Giseung Park, Sungho Choi, Youngchul Sung

This paper proposes a new sequential model learning architecture to solve partially observable Markov decision problems. Rather than compressing sequential information at every timestep as in conventional recurrent neural network-based methods, the proposed architecture generates a latent variable in each data block with a length of multiple timesteps and passes the most relevant information to the next block for policy optimization. The proposed blockwise sequential model is implemented based on self-attention, making the model capable of detailed sequential learning in partial observable settings. The proposed model builds an additional learning network to efficiently implement gradient estimation by using self-normalized importance sampling, which does not require the complex blockwise input data reconstruction in the model learning. Numerical results show that

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References & Citations

- [NASA ADS](#)

How to obtain **newest** Articles

- 1、 start from review papers

4, How to find related Articles

Start from survey papers

Computer Science > Machine Learning

[Submitted on 19 May 2020]

A Survey of Reinforcement Learning Algorithms for Dynamically Varying Environments

[Sindhu Padakandla](#)

Safe RL can be defined as the process of **learning policies** that maximize the expectation of the return in problems in which it is important to ensure reasonable system performance and/or respect safety constraints during the learning and/or deployment processes.

<https://www.jmlr.org> > papers > volume16 [PDF](#) 

[A Comprehensive Survey on Safe Reinforcement Learning](#)

4, How to find related Articles

Sta



Google Scholar

reinforcement learning survey

Articles

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Since 2021
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Deep reinforcement learning: A brief survey

[K Arulkumar](#), [MP Deisenroth](#)... - IEEE Signal ..., 2017 - [ieeexplore.ieee.org](#)

Deep **reinforcement learning** (DRL) is poised to revolutionize the field of artificial intelligence (AI) and represents a step toward building autonomous systems with a higher-level understanding of the visual world. Currently, deep **learning** is enabling **reinforcement** ...

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Applications of deep reinforcement learning in communications and networking: A survey

[NC Luong](#), [DT Hoang](#), [S Gong](#), [D Niyato](#)... - ... Surveys & Tutorials, 2019 - [ieeexplore.ieee.org](#)

This paper presents a comprehensive literature review on applications of deep **reinforcement learning** (DRL) in communications and networking. Modern networks, eg, Internet of Things (IoT) and unmanned aerial vehicle (UAV) networks, become more ...

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[PDF] A survey of preference-based reinforcement learning methods

[C Wirth](#), [R Akrou](#), [G Neumann](#), [J Fürnkranz](#) - ... of Machine Learning ..., 2017 - [jmlr.org](#)

Reinforcement learning (RL) techniques optimize the accumulated long-term reward of a suitably chosen reward function. However, designing such a reward function often requires a lot of task-specific prior knowledge. The designer needs to consider different objectives ...

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Deep reinforcement learning for autonomous driving: A survey

4, How to find related Articles

Start from survey papers: Chinese --- a quick start

Google

强化学习 综述

Q All News Images Videos Shopping More

About 2,250,000 results (0.70 seconds)

有關 强化学习 综述 的學術文章

深度强化学习综述 - 刘全 - Cited by 36

强化学习研究综述 - 高阳 - Cited by 192

深度强化学习综述: 兼论计算机围棋的发展 - 赵冬斌 - Cited by 22

<https://zhuanlan.zhihu.com> > ... · [Translate this page](#) ⋮

深度强化学习综述 (上) - 知乎专栏

在这篇文章中, SIGAI将对深度强化学习的算法与应用进行总结。整个综述分为上下两篇, 本篇介绍强化学习的基本原理, 深度强化学习的基本思想, 以及基于价值函数的深度 ...

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现代深度强化学习算法综述 - 知乎专栏

<https://www.x-mol.com> › paper · [Translate this page](#) ⋮

规避风险的贝叶斯自适应强化学习, arXiv - CS - Machine Learning

12 Feb 2021 — 在这项工作中, 我们解决了规避风险的贝叶斯自适应强化学习。我们提出了一个问题, 即在支持贝叶斯的马尔可夫决策过程 (MDP) 中优化总收益的条件风险 ...

<https://www.x-mol.com> › paper · [Translate this page](#) ⋮

规避风险的离线强化学习, arXiv - CS - Machine Learning - X-MOL

11 Feb 2021 — 由于勘探相关的风险, 在高风险应用中培训强化学习 (RL) 代理可能过于禁止。因此, 代理只能使用以前由安全策略收集的数据。尽管先前的工作考虑使用离线 ...

规避风险的贝叶斯自适应强化学习

arXiv - CS - Machine Learning Pub Date : 2021-02-10 , DOI: [arxiv-2102.05762](https://doi.org/10.26434/chemrxiv-2021-02-10)

Marc Rigter, Bruno Lacerda, Nick Hawes

在这项工作中, 我们解决了规避风险的贝叶斯自适应强化学习。我们提出了一个问题, 即在支持贝叶斯的马尔可夫决策过程 (MDP) 中优化总收益的条件风险值 (CVaR)。我们表明, 在这种情况下优化CVaR的策略既避免因MDP上的先验分布引起的参数不确定性, 又由于MDP固有的随机性而产生内部不确定性。我们将问题重新构造为两人随机游戏, 并提出一种基于蒙特卡洛树搜索和贝叶斯优化的近似算法。我们的实验表明, 对于该问题, 我们的方法明显优于基线方法。

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IEEE Transactions on Automatic Control (IF 5.792) Pub Date : 2020-03-01 ,DOI:10.1109/tac.2019.2926674

Lillian J. Ratliff, Eric Mazumdar

这项工作解决了决策者对风险敏感的马尔可夫决策过程中的逆向强化学习问题。特别是，提出了一种具有收敛性保证的风险敏感型强化学习算法，该算法利用了行为风险和经济学的连贯风险度量和人类决策模型。风险敏感的强化学习算法为基于梯度的逆强化学习算法提供了理论基础，该算法试图最小化对观察到的行为定义的损失函数。结果表明，损失函数相对于模...

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[Y Li](#), [R Wang](#), [Z Yang](#) - [IEEE Transactions on Sustainable ...](#), 2021 - [ieeexplore.ieee.org](#)

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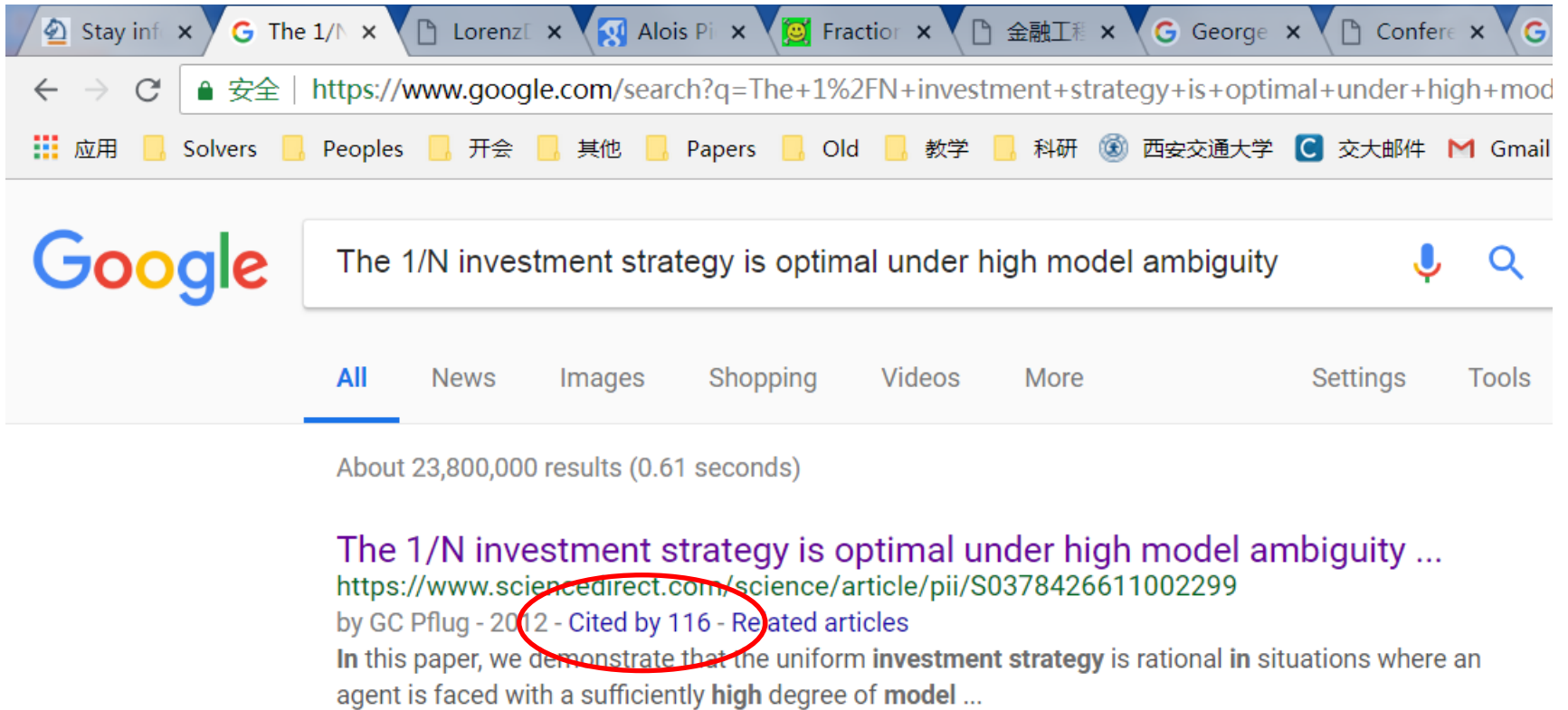
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The screenshot shows a Google search interface. The search bar contains the text "The 1/N investment strategy is optimal under high model ambiguity". Below the search bar, the "All" tab is selected. The search results show approximately 23,800,000 results found in 0.61 seconds. The top result is a link to a ScienceDirect article: "The 1/N investment strategy is optimal under high model ambiguity ... https://www.sciencedirect.com/science/article/pii/S0378426611002299 by GC Pflug - 2012 - Cited by 116 - Related articles". A red circle highlights the text "Cited by 116 - Related articles". Below the link, a snippet of the article text is visible: "In this paper, we demonstrate that the uniform investment strategy is rational in situations where an agent is faced with a sufficiently high degree of model ...".

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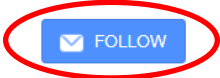
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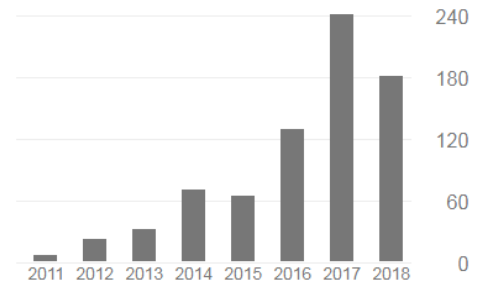
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A robust policy for automatic generation control cyber attack in two area power network P Mohajerin Esfahani, M Vrakopoulou, K Margellos, J Lygeros, ... 49th IEEE Conference on Decision and Control (CDC), 5973-5978	51 *	2010
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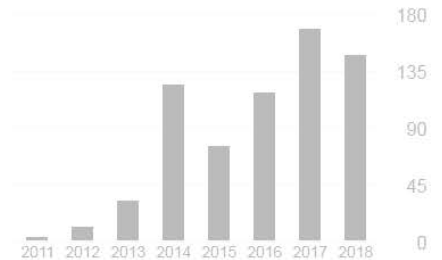
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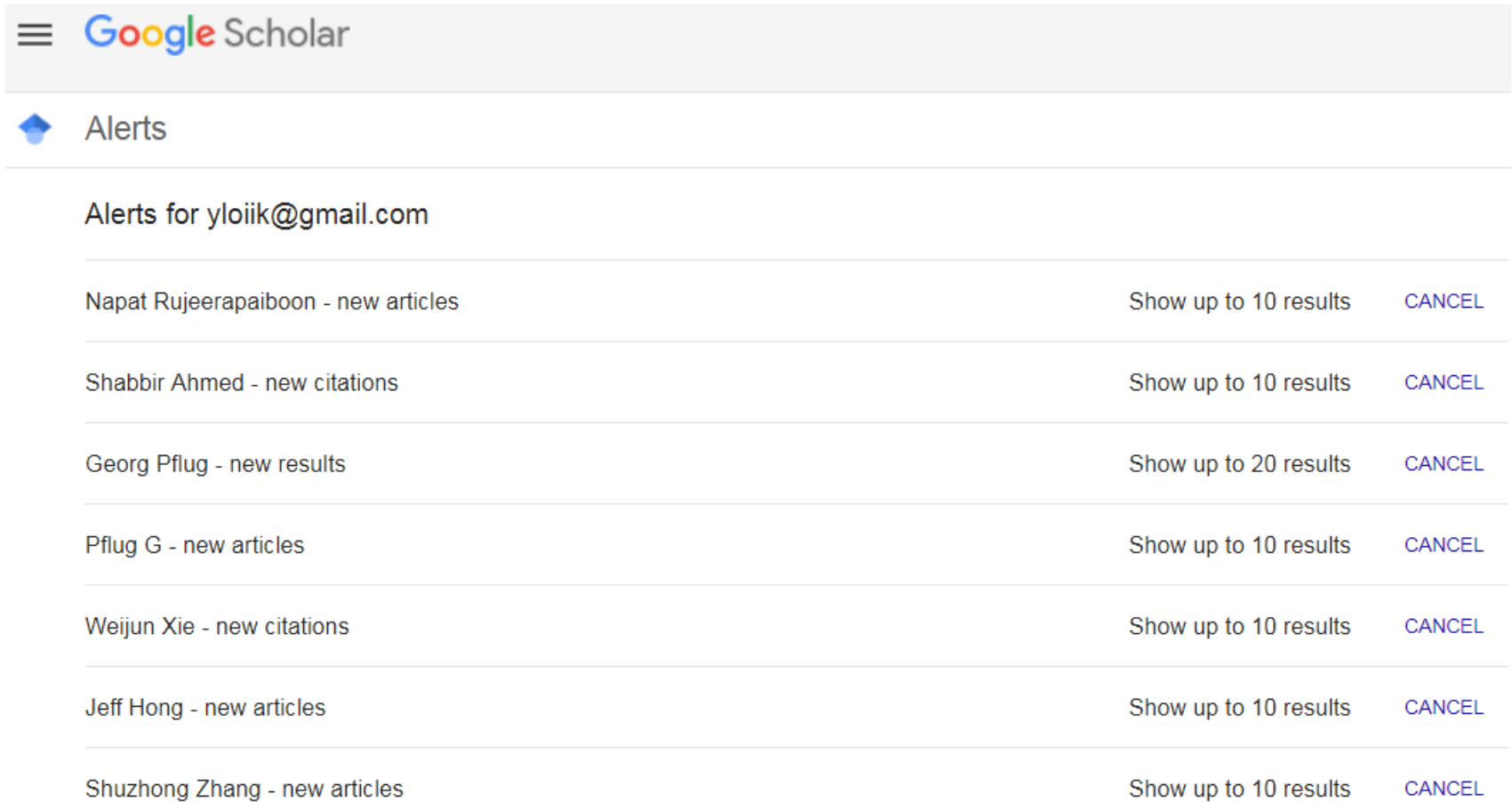
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A Pichler, R Schlotter - arXiv preprint arXiv:1802.03639, 2018

Abstract: This paper addresses risk awareness of stochastic optimization problems. Nested risk measures appear naturally in this context, as they allow beneficial reformulations for algorithmic treatments. The reformulations presented extend usual Hamilton-Jacobi-Bellman



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GC Pflug, A Pichler - Central European Journal of Operations Research, 2018

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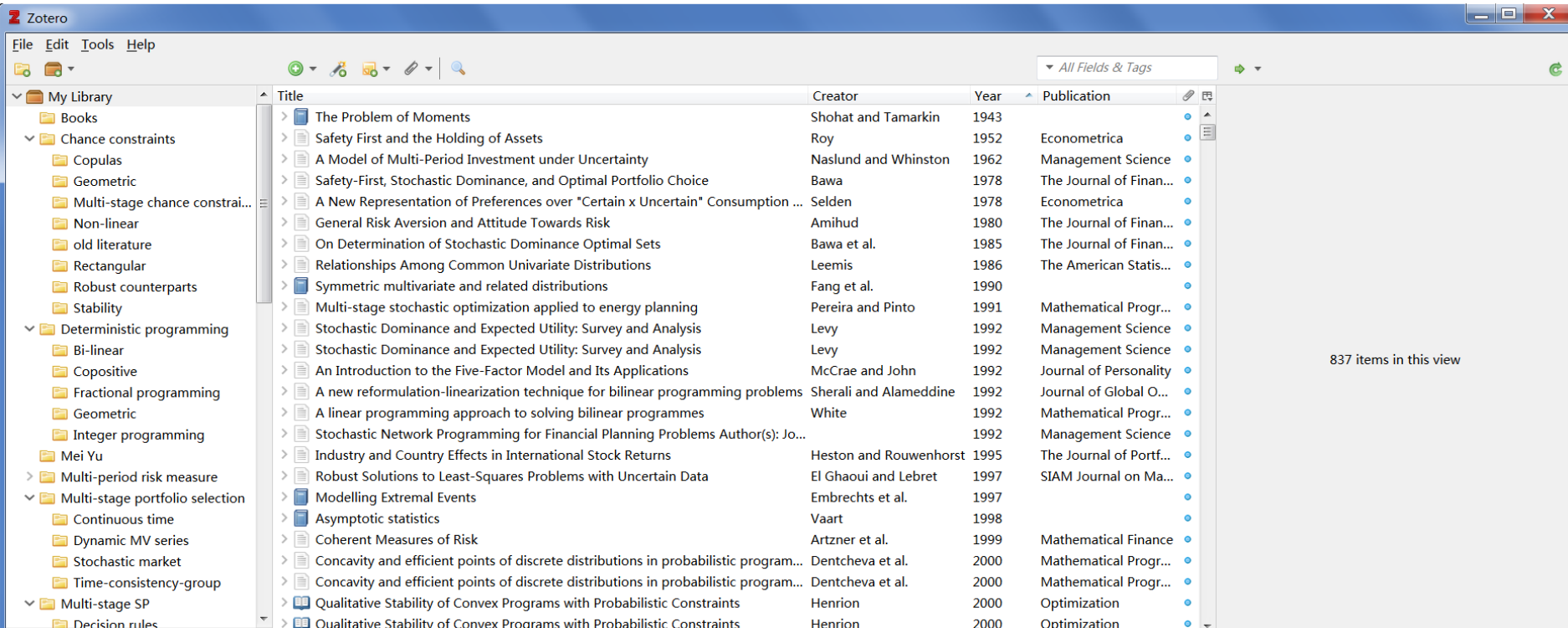
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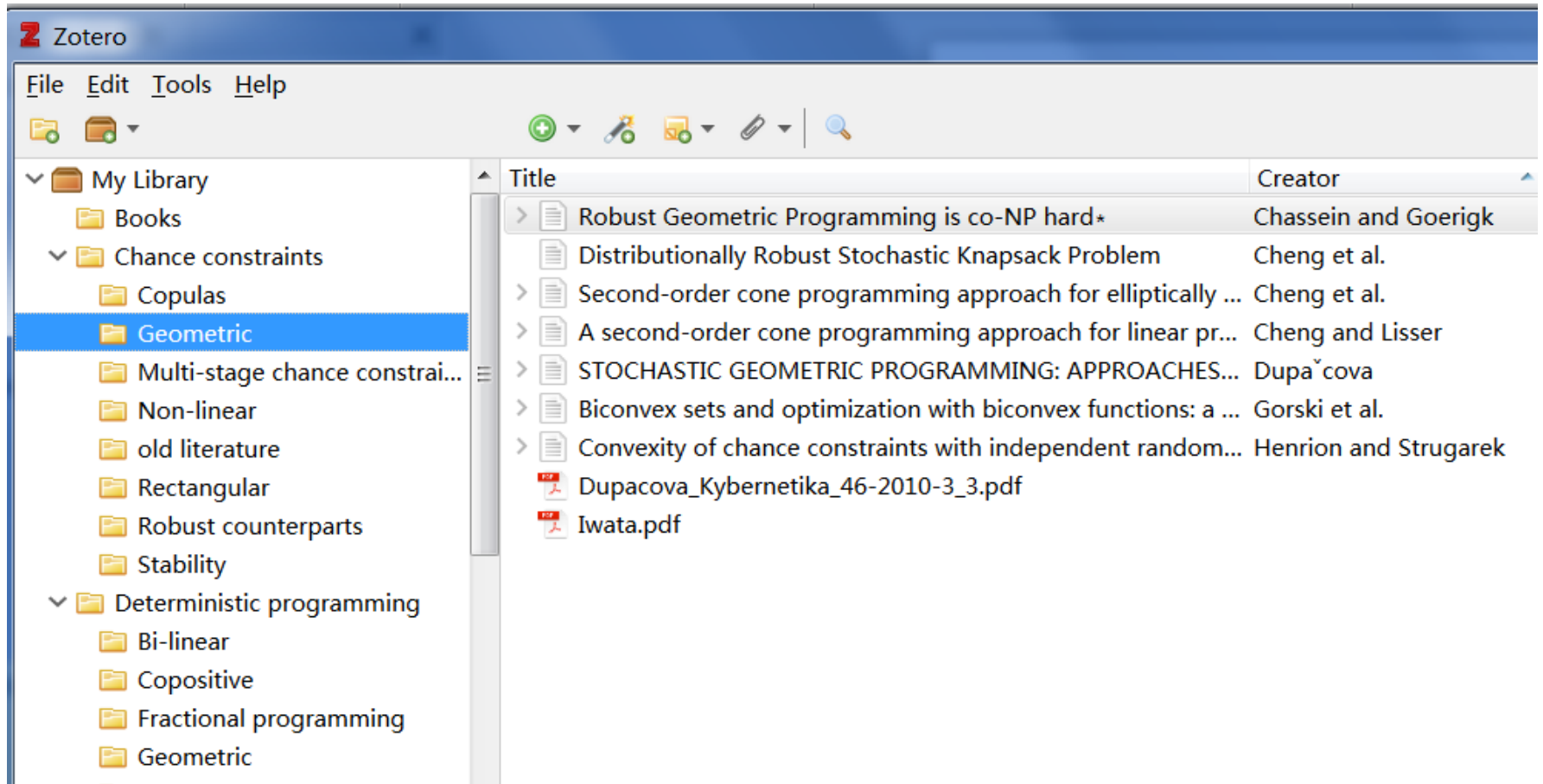


The screenshot displays the Zotero application window. On the left, a tree view shows a hierarchical library structure under 'My Library', including folders for 'Books', 'Chance constraints', 'Deterministic programming', and 'Multi-stage portfolio selection'. The main pane shows a list of items with columns for Title, Creator, Year, and Publication. The list contains 837 items, with the first few entries visible. A status bar at the bottom right indicates '837 items in this view'.

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Safety First and the Holding of Assets	Roy	1952	Econometrica
A Model of Multi-Period Investment under Uncertainty	Naslund and Whinston	1962	Management Science
Safety-First, Stochastic Dominance, and Optimal Portfolio Choice	Bawa	1978	The Journal of Finan...
A New Representation of Preferences over "Certain x Uncertain" Consumption ...	Selden	1978	Econometrica
General Risk Aversion and Attitude Towards Risk	Amihud	1980	The Journal of Finan...
On Determination of Stochastic Dominance Optimal Sets	Bawa et al.	1985	The Journal of Finan...
Relationships Among Common Univariate Distributions	Leemis	1986	The American Statis...
Symmetric multivariate and related distributions	Fang et al.	1990	
Multi-stage stochastic optimization applied to energy planning	Pereira and Pinto	1991	Mathematical Progr...
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An Introduction to the Five-Factor Model and Its Applications	McCrae and John	1992	Journal of Personality
A new reformulation-linearization technique for bilinear programming problems	Sherali and Alameddine	1992	Journal of Global O...
A linear programming approach to solving bilinear programmes	White	1992	Mathematical Progr...
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Industry and Country Effects in International Stock Returns	Heston and Rouwenhorst	1995	The Journal of Portf...
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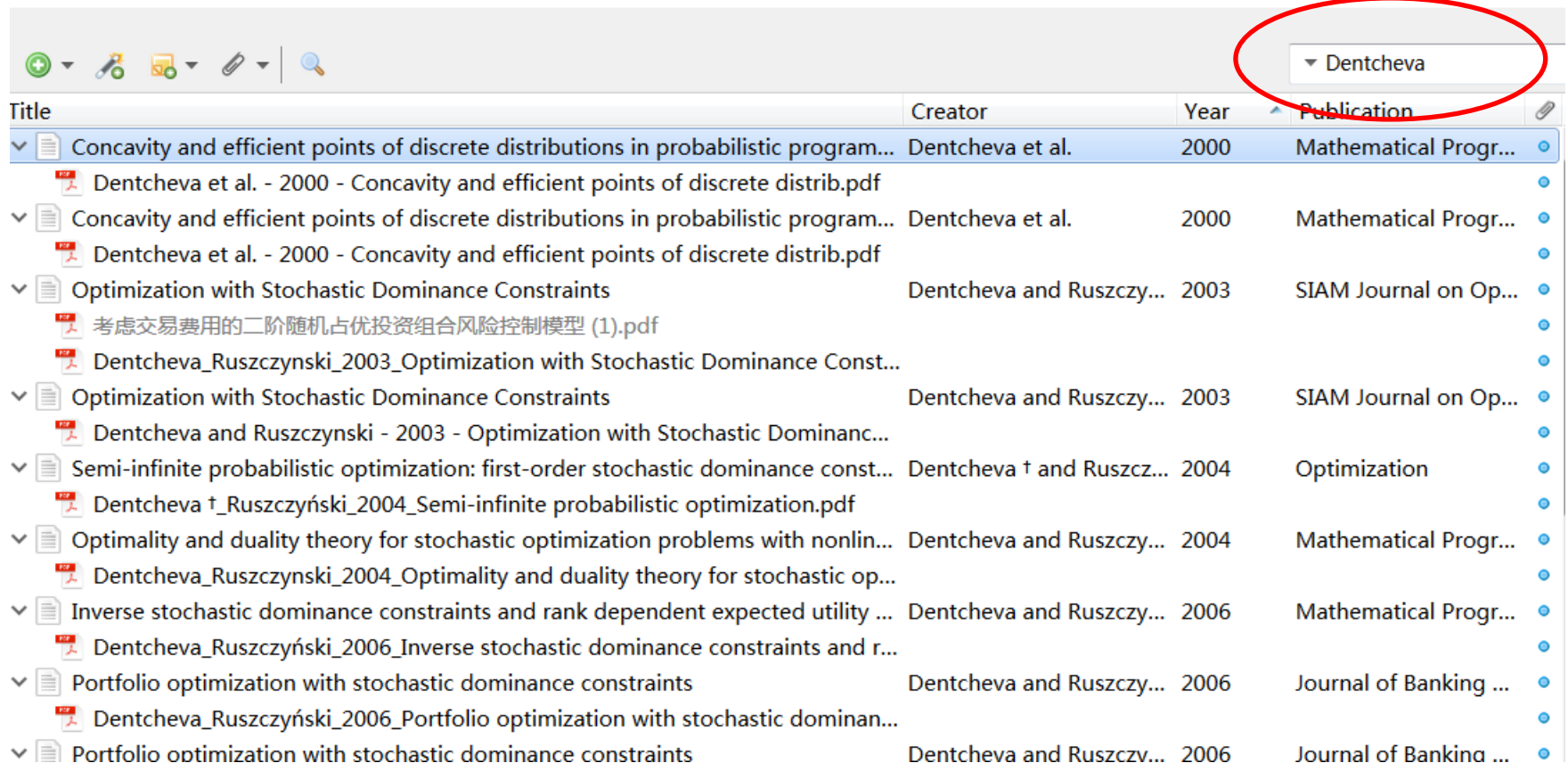











The screenshot shows the Zotero application window. The title bar reads 'Zotero'. The menu bar includes 'File', 'Edit', 'Tools', and 'Help'. Below the menu bar is a toolbar with icons for adding, editing, deleting, and searching. The left sidebar shows a tree view of the library structure. The 'My Library' folder is expanded, showing subfolders: 'Books', 'Chance constraints', 'Copulas', 'Geometric' (highlighted in blue), 'Multi-stage chance constrai...', 'Non-linear', 'old literature', 'Rectangular', 'Robust counterparts', 'Stability', 'Deterministic programming', 'Bi-linear', 'Copositive', 'Fractional programming', and 'Geometric'. The main pane displays a list of items from the 'Geometric' collection in a table format.

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> Robust Geometric Programming is co-NP hard*	Chassein and Goerigk
> Distributionally Robust Stochastic Knapsack Problem	Cheng et al.
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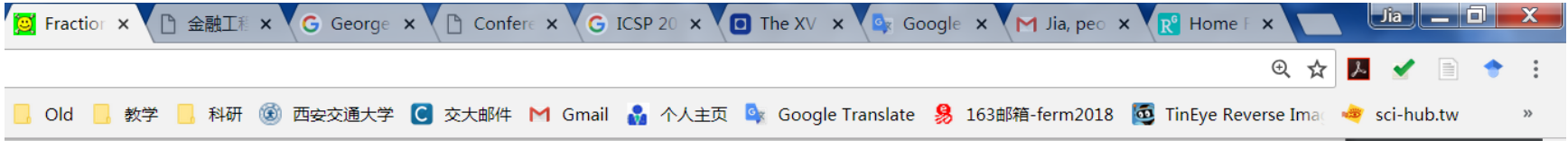
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Title	Creator	Year	Publication	
Concavity and efficient points of discrete distributions in probabilistic program...	Dentcheva et al.	2000	Mathematical Progr...	○
 Dentcheva et al. - 2000 - Concavity and efficient points of discrete distrib.pdf				○
Concavity and efficient points of discrete distributions in probabilistic program...	Dentcheva et al.	2000	Mathematical Progr...	○
 Dentcheva et al. - 2000 - Concavity and efficient points of discrete distrib.pdf				○
Optimization with Stochastic Dominance Constraints	Dentcheva and Ruszczy...	2003	SIAM Journal on Op...	○
 考虑交易费用的二阶随机占优投资组合风险控制模型 (1).pdf				○
 Dentcheva_Ruszczyński_2003_Optimization with Stochastic Dominance Const...				○
Optimization with Stochastic Dominance Constraints	Dentcheva and Ruszczy...	2003	SIAM Journal on Op...	○
 Dentcheva and Ruszczyński - 2003 - Optimization with Stochastic Dominanc...				○
Semi-infinite probabilistic optimization: first-order stochastic dominance const...	Dentcheva † and Ruszcz...	2004	Optimization	○
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Optimality and duality theory for stochastic optimization problems with nonlin...	Dentcheva and Ruszczy...	2004	Mathematical Progr...	○
 Dentcheva_Ruszczyński_2004_Optimality and duality theory for stochastic op...				○
Inverse stochastic dominance constraints and rank dependent expected utility ...	Dentcheva and Ruszczy...	2006	Mathematical Progr...	○
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Portfolio optimization with stochastic dominance constraints	Dentcheva and Ruszczy...	2006	Journal of Banking ...	○
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MANTAINTION



FRACTIONAL RISK PROCESS IN INSURANCE

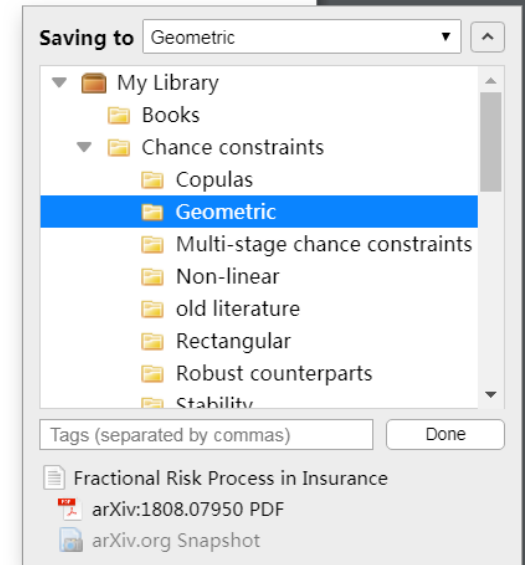
Arun KUMAR¹ Nikolai LEONENKO² Alois PICHLER³

Abstract

Important models in insurance, for example the Carmér–Lundberg theory and the Sparre Andersen model, essentially rely on the Poisson process. The process is used to model arrival times of insurance claims.

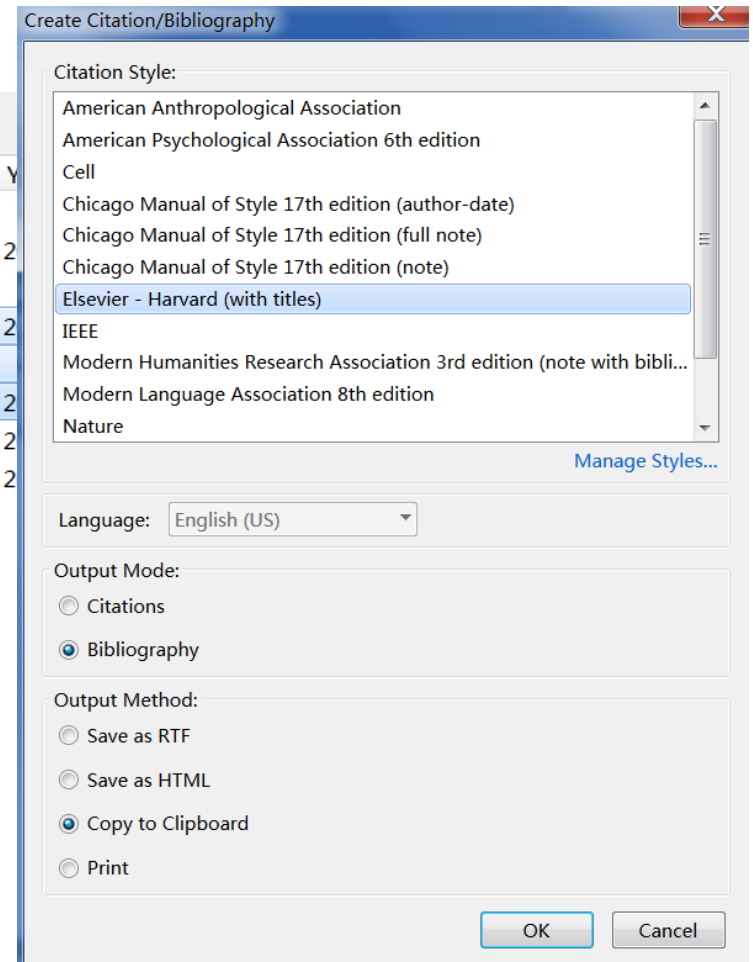
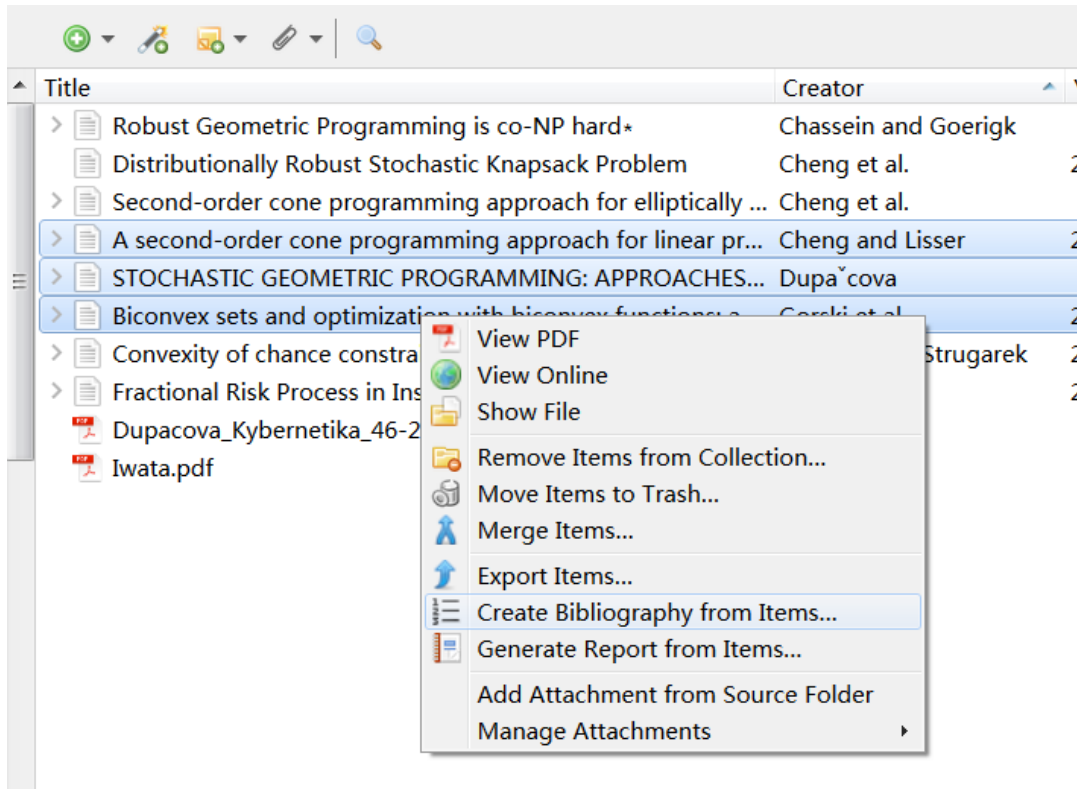
This paper extends the classical framework for ruin probabilities by proposing and involving the fractional Poisson process as a counting process and addresses fields of applications in insurance.

The interdependence of the fractional Poisson process is an important feature of the process, which leads to initial stress of the surplus process. On the other hand we demonstrate that the average capital required to recover a company after ruin does not change when switching to the fractional Poisson regime. We finally address particular risk measures, which allow simple evaluations in an environment governed by the fractional Poisson process.



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