

# GTM2024: 14TH ANNUAL GLOBAL TECHMINING CONFERENCE

PROGRAM AUTHORS KEYWORDS

## PROGRAM

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Days: [Monday, September 16th](#) [Tuesday, September 17th](#)

Monday, September 16th

View this program: [with abstracts](#) [session overview](#) [talk overview](#)

**13:30-14:45** Session 1A: Power Talks

LOCATION: [Track 1](#)

- 13:30 [Ning Yang](#), [Xin Zhang](#), [Wei Hu](#), [Shuang Zhao](#), [Shan Li](#) and [Zhengyin Hu](#)  
**Mining the citations and knowledge diffusion patterns of scientific data from academic papers** ([abstract](#))
- 13:35 [Mehdi Zamani](#), [Tetyana Melnychuk](#), [Anton Eisenhauer](#), [Ralph Gäbler](#) and [Carsten Schultz](#)  
**Investigating Past, Present, and Future Trends on the Interface Between Marine and Medical Research & Development: A Quantitative Strategic Foresight Analysis** ([abstract](#))
- 13:40 [Ping Zhao](#), [Xuezhao Wang](#) and [Fang Chen](#)  
**Research on the Layout of the Industry Chain for Typical EDA Chips Software** ([abstract](#))
- 13:45 [Wenjun Sun](#), [Chongjun Xi](#), [Yajuan Zhao](#), [Lucheng Lyu](#) and [Ying Su](#)  
**Patent Technology Gap Technology Opportunity Forecasting Study** ([abstract](#))
- 13:50 [Chao Tang](#), [Haiyun Xu](#), [Yan Qi](#), [Liang Chen](#) and [Xin Zhang](#)  
**Identification and Evolution of Core Themes Related to Small Molecule Drugs in the Field of Lung Cancer from a Patent Perspective** ([abstract](#))
- 13:55 [John Culbert](#), [Nina Smirnova](#) and [Philipp Mayr](#)  
**Automating Reproducible Bibliometrics with OpenAlex** ([abstract](#))
- 14:00 [Yanpeng Wang](#) and [Xuezhao Wang](#)  
**Identifying S&T Priorities Using Domain Knowledge and Pre-trained Model** ([abstract](#))
- 14:05 [Cristian Mejia](#)  
**Societal Impact of Emerging Technologies: A Novel Approach Combining Patent Data and Global News Media Analysis** ([abstract](#))

**13:30-14:45** Session 1B: Power Talks

- 13:30 [Julian Jang-Jaccard](#), [Alain Mermoud](#) and [Thomas Berkane](#)  
**GitHub as a Tech Monitoring Tool: Case with Quantum Technologies** ([abstract](#))
- 13:35 [Xin Zhang](#), [Shuying Li](#), [Haiyun Xu](#) and [Ning Yang](#)  
**Research on the Potential Prediction of Patent Transfer and Transformation—Taking Sichuan Province's Invention Patents as an Example** ([abstract](#))
- 13:40 [Man Jiang](#), [Siluo Yang](#) and [Jiaze Wei](#)  
**Identifying Key Core Technologies Based on Semantic Associations of Technology Structure-Function** ([abstract](#))

- 13:45 [Vinicius Muraro](#) and [Alysson Mazoni](#)  
**Digital Tools in the Circular Economy: A Scientometric Analysis Using AI and Direct Citation Clustering** ([abstract](#))
- 13:50 [Zhinan Wang](#), [Bo Yang](#), [Jian Liu](#) and [Heng Chen](#)  
**The Emerging Family Model Based on Knowledge Gene Theory: A New Tool for Discovering Technology Opportunities** ([abstract](#))
- 13:55 [Vinicius Muraro](#) and [Vitor Miranda de Souza](#)  
**Knowledge Transfer from Interdisciplinary Research on Circular Economy to Academic Disciplines - a bibliometrics study** ([abstract](#))
- 14:00 [Chongjun Xi](#), [Yajuan Zhao](#), [Lucheng Lyu](#) and [Zhanyi Zhao](#)  
**Research on Patent Portfolio Identification Based on Matrix Similarity** ([abstract](#))

14:45-15:15 Coffee Break

15:15-16:30 Session 2A

- 15:15 [Junyi Chen](#), [Mengjia Wu](#) and [Yi Zhang](#)  
**Explainable Prediction of Knowledge Recombination: A Synergised Method with Large Language Models and Graph Learning** ([abstract](#))
- 15:35 [Xin Li](#), [Wenya Ma](#), [Ning Gao](#) and [Qianqian Xie](#)  
**Early identification of potential disruptive technologies using outlier detection method and deep learning from patent data** ([abstract](#))
- 15:55 [Anne Kreuter](#), [Elena Senger](#) and [Yuri Campbell](#)  
**A Data Pipeline for Identifying and Classifying Fiber Composite Companies via Web Scraping and Machine Learning** ([abstract](#))

15:15-16:30 Session 2B

- 15:15 [Ziqiang Liu](#), [Haiyun Xu](#), [Lixin Yue](#), [Zenghui Yue](#) and [Zhengyin Hu](#)  
**Research on the Measurement Method of Hysteresis Effect in the Associated Evolution of Fund and its Funded Paper Topics** ([abstract](#))
- 15:35 [Haiyun Xu](#), [Junhao Yang](#), [Chunjiang Liu](#), [Xin Zhang](#) and [Shuying Li](#)  
**Early Detection Method for Weak Signal in the Evolution Process of Emerging Topic Networks** ([abstract](#))
- 15:55 [Shihhsin Chen](#), [Yen-Hao Chao](#), [Hung-Chi Chang](#) and [Wenhsin Chi](#)  
**A Study on Sustainability of Emerging Industries: A Comparative Text-Mining and Thematic Analysis (SESSION2)** ([abstract](#))

Tuesday, September 17th

View this program: [with abstracts](#) [session overview](#) [talk overview](#)

09:00-10:00 Session 3: Keynote: Soeren Auer "Leveraging Neuro-Symbolic AI for Tech-Mining in the Open Research Knowledge Graph"

10:00-11:15 Session 4A

- 10:00 [Nigel Walton](#) and [Sercan Ozcan](#)  
**An assessment of the AI readiness of SMEs in the UK for the adoption of LLMs and Gen-AI technologies.** ([abstract](#))
- 10:20 [Liyue Chen](#), [Jielan Ding](#), [Donghuan Song](#) and [Zihao Qu](#)  
**Exploring Scientific Contributions through Citation Context and Division of Labor** ([abstract](#))

10:40 [Liu Chunjiang](#), [Yikun Han](#), [Hongshen Pang](#), [Haiyun Xu](#) and [Ziqiang Liu](#)  
**Study on patent function words auto extraction based on a small LLM** ([abstract](#))

10:00-11:15 Session 4B

10:00 [Laura M. Berensmeier](#), [Andre Herzberg](#) and [Martin G. Moehrle](#)  
**Assessing Frugal Inventions by means of Generative Artificial Intelligence** ([abstract](#))

10:20 [Alexander Sternfeld](#), [Andrei Kucharavy](#), [Dimitri Percia David](#), [Julian Jang-Jaccard](#) and [Alain Mermoud](#)  
**Extracting Semantic Entity Triplets by Leveraging LLMs** ([abstract](#))

10:40 [Niloufar Farrokhzad](#), [Mehmet Abdulhayoglu](#) and [Bart Thijs](#)  
**Exploring Citation Impact in Circular Economy Research: An Analysis of Expected Citations Based on LLM-Generated Lexical Similarities Between Papers** ([abstract](#))

11:15-11:45 Coffee Break

11:45-13:00 Session 5A

11:45 [Jan-Tilman Seipp](#), [David Reuschenberg](#), [Eren Özveren](#), [Matthias Meyer](#), [Felix Köhler](#), [Leonhard Hennig](#), [David Harbecke](#) and [Phuc Tran Troung](#)  
**Deep Learning-based Text Mining for Technology Monitoring in the Automotive Domain** ([abstract](#))

12:05 [Dongmei Ye](#), [Chongjun Xi](#), [Jia Yuan](#) and [Ying Huang](#)  
**Conceptualizing and Identifying Technological Leapfrogging: Insights from Punctuated Equilibria Theory** ([abstract](#))

12:25 [Yun Fu](#), [Yibin Jiang](#) and [Xiwen Liu](#)  
**ULEU: Unified Language of Experiment Units for Representation of Robot-Executable Synthesis Protocols** ([abstract](#))

11:45-13:00 Session 5B

11:45 [Jue Wang](#), [Rainer Frietsch](#), [Peter Neuhausler](#) and [Rosalie Hooi](#)  
**International collaboration and high citation: Global impact or home country effect?** ([abstract](#))

12:05 [Zhengyin Hu](#), [Chen Wenjie](#), [Hongshen Pang](#) and [Xiaomei Wang](#)  
**A knowledge graph of hematopoietic stem cell oriented to scientific knowledge discovery** ([abstract](#))

12:25 [Fabian Siekmann](#)  
**Enhancing Trust in Online Product Review Analytics: Designing Reviewer Behavioral Visibility for New Product Development** ([abstract](#))

13:00-14:00 Lunch

14:00-15:15 Session 6A

14:00 [Duenkai Chen](#)  
**News Sentiment Analysis Leveraging Large Language Model for International Relation Studies (SESSION2)** ([abstract](#))

14:20 [Rainer Frietsch](#), [Torben Schubert](#), [Peipei Yang](#), [Denilton Darold](#) and [Sonia Gruber](#)  
**Innovation research analysis: A topic modeling of publications across countries** ([abstract](#))

14:40 [Robbie Gallucci](#) and [Gareth Jones](#)  
**Trade Marks Text Mining** ([abstract](#))

14:00-15:15 Session 6B

- 14:00 [Jing Ma](#)  
**A Motif Based Method for Technology Structural Similarity Analysis** ([abstract](#))
- 14:20 [Yi-Ling Lo](#), [Shihhsin Chen](#) and [Hung-Chi Chang](#)  
**The Evolution of the Innovation Ecosystem in the Semiconductor Industry (SESSION2)** ([abstract](#))
- 14:40 [Vincent Holst](#), [Andres Algaba](#), [Floriano Tori](#), [Sylvia Wenmackers](#) and [Vincent Ginis](#)  
**The Illusion of Decline: Unpacking Intrinsic Network Effects in Scientific Disruption** ([abstract](#))
- 15:00 [Alysson Mazoni](#), [Paula Oddone de Souza](#), [Carolina Zabini](#) and [João Maricato](#)  
**Computational clues for finding information in text: application for UNESCO Geoparks' documents** ([abstract](#))
- 15:15-15:45** Coffee Break
- 15:45-17:00** Session 7: Intelligent Bibliometrics: what are -- and what should be -- emerging roles for AI
- 17:30-21:00** Joint GTM-STI Reception