ACM International Conference on Information and Knowledge Management October 21-25, 2024 at Boise, Idaho (USA)

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The ACM International Conference on Information and Knowledge Management (CIKM) provides a unique venue where both industry and academia can share and discuss cutting-edge research in various fields such as artificial intelligence, search and discovery, data mining, and database systems, all within a single conference. CIKM stands out as an ideal event to showcase technologies and insights that contribute to the realization of the big data and artificial intelligence vision for the future. CIKM 2024 will be held in Boise, Idaho (USA) and will bring together the major international research groups working on information and knowledge management, along with many of the world's leading companies active in e-commerce and other adjacent domains. Proceedings will be published by ACM as part of the ACM Digital Library.

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1. INTRODUCTION

The ACM International Conference on Information and Knowledge Management (CIKM) is the premier international conference focusing on the intersection of artificial intelligence, information retrieval, databases, and knowledge management. Running annually since 1992, CIKM attracts top talent from industry and academia, aiming to facilitate collaboration and bridge the gap between academic research and commercial applications. CIKM 2024 will be hosted in Boise, Idaho (USA).

The purpose of CIKM is to identify challenging problems faced during the development of future knowledge and information systems. It aims to shape future directions of research by soliciting and reviewing high quality, applied and theoretical research findings. Alongside the primary technical track, CIKM 2024 will feature three keynotes and invited talks, workshops and tutorials, a PhD Symposium, an Industry Day, and the AnalityCup.

2. CONFERENCE THEMES AND TOPICS

CIKM welcomes submissions of original, high-quality research papers in the broad domains of artificial intelligence, data science, databases, information retrieval, and knowledge management.

2.1 Topics of Interest

Topics of interest for CIKM 2024 include but are not limited to (alphabetically ordered):

—Analytics and machine learning (e.g., OLAP, data mining, machine learning and AI, scalable analysis algorithms, algorithmic biases, event detection, and tracking, understanding, and interpretability)

—Applications (e.g., urban systems, biomedical and health informatics, legal informatics, crisis informatics, computational social science, data-enabled discovery, social media)

—Crowdsourcing (e.g. task assignment, worker reliability, optimization, trustworthiness, transparency, best practices)

—Data and information acquisition and preprocessing (e.g., data crawling, IoT data, data quality, data privacy, mitigating biases, data wrangling)

—Data preparation, Valuation, and Trading

—Data presentation (e.g., visualization, summarization, readability, VR, speech input/output)

—Efficient data processing (e.g., serverless, data-intensive computing, database systems, indexing and compression, architectures, distributed data systems, dataspaces, customized hardware)

—Evaluation, performance studies, and benchmarks (e.g., online and offline evaluation, best practices)

—Fairness, Accountability, Transparency, Ethics, and Explainability in Information and Knowledge Management

—Generation of knowledge graphs using unstructured data

—Information access and retrieval (e.g., web search, question answering and dialogue systems, retrieval models, query processing, personalization, recommender, and filtering systems)

—Information retrieval in the era of LLMs

—Integration and aggregation (e.g., semantic processing, data provenance, data linkage, data fusion, knowledge graphs, data warehousing, data lake, privacy and security, modeling, information credibility)

—Knowledge graphs support data representation and manipulation

—Mining multi-modal content (e.g., natural language processing, speech recognition, computer vision, content understanding, knowledge extraction, knowledge graphs, and knowledge representations)

—Neural Information and knowledge processing (e.g., graph neural networks, domain adaptation, transfer learning, network architectures, neural ranking, neural recommendation, and neural prediction)

—Open-ended QA systems

—Special data processing (e.g., multilingual text, sequential, stream, time series, spatio-temporal, (knowledge) graph, multimedia, scientific, and social media data)

—Users and interfaces for information systems (e.g., user behavior analysis, user interface design, perception of biases, personalization, interactive information retrieval, interactive analysis, spoken interfaces)

3. CONFERENCE CONTRIBUTIONS

CIKM 2024 will feature peer-reviewed papers of exceptional quality covering the key areas mentioned above. Upholding the high standards and impact of the CIKM conference series, each paper will undergo a rigorous review process, with a minimum of three evaluations by program committee members and a meta-review summarizing the consensus among reviewers.

CIKM 2024 will showcase a variety of paper types, including *full research papers*, *short research papers*, and *applied research papers*. *Full research* papers are expected to present substantial contributions with lasting value, covering complex innovations or studies and providing a comprehensive discussion of related work. In contrast, *short research* papers typically explore new and promising ideas that may not yet be fully developed for a full paper. Particularly, innovative proposals with significant potential will be considered for acceptance in this category, even if they lack extensive experimental validation or a strong theoretical foundation.

The *Applied Research* Track welcomes submissions from both academia and industry that aim to enhance the understanding of deploying Information Retrieval, Natural Language Processing, and Artificial Intelligence on a large scale. In contrast to the *Full/Short Research* Track, the *Applied Research Track* focuses on practical applications, such as detailing system implementations, data acquisition processes, or the application of methodologies that tackle significant real-world issues and showcase tangible benefits and impact. We encourage submissions that highlight the real-world impact of research and demonstrate practicality and scalability.

Resource papers focus on data resources comprising a new and innovative dataset or protocol, developed using novel methods or algorithms; data resources labelled using novel and well-described annotation and/or crowdsourcing approaches; software resources to support research on novel application domains or support novel evaluation or benchmark tasks; or software resources such as prototypes and services, open source frameworks, or tools and libraries which support computing, visualization, evaluation and other exploration tasks in data science, data engineering, or information and knowledge management.

Demos should showcase exciting new technologies and initial prototypes contributing to the state-of-the-art in the scope of CIKM, as well as case studies from more mature systems with innovative features and functionalities.

Workshops offer an opportunity to discuss and explore emerging research areas, expand upon established topics, or showcase practical applications related to various stages of the data lifecycle. These stages include data acquisition, pre-processing, modeling, integration/aggregation, storage, analysis, and consumption. Additionally, interdisciplinary workshops connecting different communities are highly encouraged.

The program will also feature both half- and full-day *tutorials* led by experienced researchers and practitioners who are actively engaged in their fields. These tutorials should cover a specific topic of interest in depth, targeting various levels of expertise and interests. The goal is to offer a comprehensive overview of the topic and then connect with the latest research and advancements in the related area of interest.

Doctoral students specializing in databases, information retrieval, and knowledge management are encouraged to showcase their research at the *Ph.D. Symposium*. This symposium offers a nurturing setting for doctoral candidates to share their ongoing research, gain insights from seasoned researchers, and interact with peers who are also navigating similar stages in their doctoral journeys.

The program will feature an *Industry Day* with technical talks demonstrating the practical applications of CIKM topics in industry. This includes showcasing how machine learning is utilized, interpreting user behavior, enhancing systems, optimizing industrial pipelines, and addressing scalability challenges. Talk proposals from small companies, including startups or spin-offs from universities or large corporations are especially encouraged.

Lastly, CIKM 2024 will include the *AnalytiCup*, an open competition featuring compelling data challenges. It is designed for individuals from both industry and academia who are interested in information and knowledge management.

3.1 Keynote speakers

CIKM 2024 will also features three distinguished keynote speakers from academia and industry.

4. CONFERENCE VENUE

The CIKM 2024 conference will take place at the Boise Centre, the premier Downtown convention center. Located in the Grove Plaza, it lies at the core of Downtown Boise and is conveniently within walking distance of hotels and restaurants.

Boise is a charming city nestled along the river where the desert softly meets the Rocky Mountains. Serving as Idaho's capital, Boise boasts a welcoming small-town atmosphere with a strong sense of community. Renowned as one of the most walkable cities in the West, Boise offers convenience with nine hotels and nearly a hundred restaurants within steps of the city center. Additionally, the Boise Airport, located merely four miles or a quick ten-minute drive from downtown, provides seamless access with nonstop flights and numerous one-stop options, making traveling to Boise easier than ever before.

5. TO CONCLUDE

We encourage all SIGWEB members engaged in research related to artificial intelligence, search and discovery, data mining, and database systems to join us at CIKM 2024. This year marks the 33rd edition of the conference series, and we look forward to celebrating this milestone together.

Antonela Tommasel is a researcher at the National Council of Scientific and Technological Research (CONICET), Argentina and a member of ISISTAN Research Institute, Tandil, Argentina. She is an assistant professor at UNCPBA, Tandil, Argentina. She obtained her PhD in 2017 at the same university. Her research interests include recommender systems, text mining, user modeling, social computing, social media, user profiling, misinformation spread and bias in hate-speech.

Edoardo Serra is an associate professor at Boise State University and holds a joint appointment at Pacific Northwest National Laboratory in the Data Sciences and Machine Intelligence group. He earned his PhD in Systems and Computer Engineering from the University of Calabria in Italy in 2012. Before joining Boise State, Dr. Serra was a Postdoctoral Research Associate at the University of Maryland Institute for Advanced Computer Studies. His research is on AI and Data Science, with current interests focusing on Graph Representation Learning, AI Interpretability and Robustness, and the application of ML/AI in Cyber and National Security.

Francesca Spezzano is an Associate Professor at Boise State University in the Computer Science department. She received her Ph.D. in Computer Engineering from the University of Calabria, Italy, in 2012. Before joining Boise State, Dr. Spezzano was a Postdoctoral Research Associate at the University of Maryland Institute for Advanced Computer Studies. Her research interests deal with social network analysis and mining with applications to misbehavior and misinformation detection and mitigation, information diffusion, and national security.

Francesco Gullo is an associate professor of computer science at the University of L'Aquila (Italy), in the Department of Information Engineering, Computer Science, and Mathematics (DISIM). He received his PhD, in "Computer and Systems Engineering", from the University of Calabria (Italy), in 2010. His research falls into the broad areas of artificial intelligence and data science, with emphasis on algorithmic aspects. His recent interests include graph machine learning, graph data management, natural language processing, and trustworthy AI.