

AAAI 2023 Bridge Program on

# Artificial Intelligence and Business Process Management

ai4bpm.com

The AI4BPM Bridge at AAAI 2023 brings together academics and industry professionals working at the intersection of artificial intelligence and business process management under the same roof. The event will include invited talks, poster sessions, student outreach, meet and mingle opportunities, tutorials, hands-on system demonstrations, and much more!

**Contributed posters:** Participants are encouraged to submit 2-page abstracts on their work to participate in an extended poster and meet-and-greet session. This can be about recently published or ongoing work. If applicable, such submissions must indicate clearly when and where the corresponding papers have been or will be published.

**System demonstrations:** The poster session will also feature live system demonstrations of tools and software that are useful to both the AI and BPM community. Submissions of this type also require a 2-page abstract but must provide links to GitHub (or equivalent), and description of resources on how to access and use the tool. Treat this as a demonstration submission to a conference, but on the AI x BPM topic.

**Student Contributions:** Students working at the intersection of AI and BPM are encouraged to submit 2-page abstracts summarizing their work (either in progress or completed). Students will be given an opportunity to present their work as posters and will also be paired with mentors for dedicated mentoring sessions. Treat this as a doctoral consortium submission to a conference, but on the AI x BPM topic.

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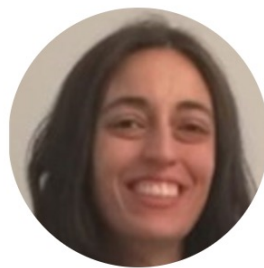
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# Artificial Intelligence and Business Process Management

The Bridge will focus on the interaction between AI approaches, especially agent-based, planning and machine learning approaches, and BPM research areas and techniques, especially business process modeling, optimization, automation and process mining. Technical topics include, but are not limited to:

- Cognitive approaches to Business Process Management
- Agent-based modeling and simulation for BPM
- Knowledge Representation (KR) and reasoning about process specifications
- AI enablement for declarative and hybrid models
- AI-driven modeling and optimization of processes
- Process Mining augmented with AI techniques
- Applications of automated planning techniques for BPM
- Non-traditional AI models and approaches to BPM
- Explainable AI and trustworthy AI for operational support in Process Mining and BPM
- Machine Learning to support workflow management
- Recommender Systems for business processes
- Constraint-based reasoning
- Goal and ontology-driven approaches to process management
- Conversational systems, natural language processing, and human-machine interaction for BPM
- AI techniques for process discovery, conformance checking, prescriptive and predictive monitoring
- AI techniques for clustering and classification of process execution traces
- Machine Learning for event recognition on semi-structured and unstructured data
- Association rule mining, specification mining, and decision mining from process execution traces
- Uncertainty in AI for process management
- Multi-agent systems, strategic reasoning, game theory, and mechanism design for multi-party processes
- Multi-objective optimization, decision-making, and continuous improvement
- AI-based robotic process automation (RPA)
- AI-based enrichment of IoT-enabled processes
- Applications of AI for Blockchain-hosted processes
- Applications of AI in industry-specific processes (e.g., retail, e-commerce, finance, manufacturing, healthcare)
- Social, economic, and business impacts of infusing AI into business processes



AI  
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