

# **2nd Workshop on Natural Language Reasoning and Structured Explanations**

Bangkok, Thailand  
15 August 2024

ISBN: 979-8-3313-0172-9

**Printed from e-media with permission by:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571



**Some format issues inherent in the e-media version may also appear in this print version.**

Copyright© (2024) by the Association for Computational Linguistics  
All rights reserved.

Printed with permission by Curran Associates, Inc. (2025)

For permission requests, please contact the Association for Computational Linguistics  
at the address below.

Association for Computational Linguistics  
209 N. Eighth Street  
Stroudsburg, Pennsylvania 18360

Phone: 1-570-476-8006  
Fax: 1-570-476-0860

[acl@aclweb.org](mailto:acl@aclweb.org)

**Additional copies of this publication are available from:**

Curran Associates, Inc.  
57 Morehouse Lane  
Red Hook, NY 12571 USA  
Phone: 845-758-0400  
Fax: 845-758-2633  
Email: [curran@proceedings.com](mailto:curran@proceedings.com)  
Web: [www.proceedings.com](http://www.proceedings.com)

## Table of Contents

<i>GraphReason: Enhancing Reasoning Capabilities of Large Language Models through A Graph-Based Verification Approach</i>	
Lang Cao .....	1
<i>PROC2PDDL: Open-Domain Planning Representations from Texts</i>	
Tianyi Zhang, Li Zhang, Zhaoyi Joey Hou, Ziyu Wang, Yuling Gu, Peter Clark, Chris Callison-Burch and Niket Tandon .....	13
<i>Towards A Unified View of Answer Calibration for Multi-Step Reasoning</i>	
Shumin Deng, Ningyu Zhang, Nay Oo and Bryan Hooi .....	25
<i>Applying RLAIIF for Code Generation with API-usage in Lightweight LLMs</i>	
Sujan Dutta, Sayantan Mahinder, Raviteja Anantha and Bortik Bandyopadhyay .....	39
<i>SummEQuAL: Summarization Evaluation via Question Answering using Large Language Models</i>	
Junyuan Liu, Zhengyan Shi and Aldo Lipani .....	46
<i>LOGIC-LM++: Multi-Step Refinement for Symbolic Formulations</i>	
Shashank Kirtania, Priyanshu Gupta and Arjun Radhakrishna .....	56
<i>From Good to Great: Improving Math Reasoning with Tool-Augmented Interleaf Prompting</i>	
Nuo Chen, Hongguang Li, Baoyuan Wang and Jia Li .....	64