

Preface

The Workshop on Improving Healthcare with Small Language Models (SLM4Health 2025) was held on June 26, 2025, in Pavia, Italy, as a satellite event of the AIME 2025 conference. This workshop emerges from the growing recognition of the transformative potential of Natural Language Processing (NLP) in healthcare. Recently, Small Language Models (SLMs) have attracted significant attention within clinical settings. Their adaptability, computational efficiency, and lower resource demands present them as a promising alternative to larger models, particularly in environments with limited resources or specific privacy constraints.

SLM4Health 2025 was conceived to explore the fast-growing role and potential of these SLMs in diverse healthcare-related NLP tasks. The workshop aimed to bring together researchers and practitioners to discuss current applications of SLMs in clinical settings, compare their performance and utility against larger models, and explore innovative methods to overcome inherent challenges. These challenges include potential performance trade-offs and critical ethical considerations such as bias, privacy, safety, and interpretability. Ultimately, the goal is to foster the development of more tailored and efficient NLP tools to improve patient care and support clinicians.

The contributions published in these proceedings reflect the vibrant research in this area. The presented works explore the practical application of SLMs and related efficient modelling techniques across a spectrum of clinical tasks, from medical question answering and speech interpretation to predictive analytics. Furthermore, they highlight the importance of addressing ethical considerations, such as safety and risk assessment in deploying AI in healthcare and tackle the challenges of adapting language models to specialized medical domains and diverse linguistic needs.

We would like to thank all members of the program committee for their diligent work in the reviewing process. We extend our gratitude to the organizers of the AIME 2025 conference for hosting SLM4Health as a co-located workshop. We also sincerely thank all the authors for their insightful contributions and their engagement with the review feedback. Finally, we appreciate the participation of all attendees who contributed to the stimulating discussions during the workshop.

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Kerstin Denecke and Douglas Teodoro

SLM4Health 2025 Program Chairs

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