Laboratorio di Ricerca Operativa,
Università degli Studi di Trieste,
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Trieste, June 4, 2025

To whom it may concern,

I am pleased to strongly recommend Nilufar Iangiboeva for admission to the Applied Data Science and Artificial Intelligence Ph.D. program. I had the chance to be her thesis co-supervisor and, due to the quality of the effort and the potential that arose from her study, we are planning to continue the collaboration toward the publication of her work in some academic journals.

Nilufar was introduced to me by Professor Pesenti, who teaches Operations Research at the Venice School of Management, and who asked me to co-supervise her thesis since the topic was relevant to my research field. The goal of her work was to design and solve an Air Traffic Management optimisation problem under uncertainty conditions, which is an interesting, important but also hard challenge, in particular for a master student. Although she started with very little knowledge about Air Traffic Management and its complex dynamics, she quickly got familiar with the key concepts, achieving in a remarkably short time the required understanding of all relevant components to consider for a correct definition of the problem statement. In addition, due to her strong background in optimisation and statistics, she successfully accomplished the mathematical formulation and the solution algorithms design.
From the implementation perspective, even though already in the early stages of the thesis she was enough autonomous to correctly coding, and therefore solving, toy instances, during the work she rapidly improved her software development skills, allowing her to design and realise a complex and well written Python library, in which large data are collected, elaborated and used to run optimisation and simulation experiments.

The current study can be already considered as a demonstration of her skills in stochastic and classic optimisation, and it represents a successful effort itself. Still, plenty of potential extensions and further developments can originate from this effort, and applications of machine learning-based techniques are very likely to be the most suitable tools to tackle these data-driven complex optimisation problems. Nilufar undoubtedly showed to be capable of dealing with such challenges, and to have the motivation, the scientific curiosity, the technical competence and the autonomy to successfully complete a Phd program in this field.

I enthusiastically endorse her application and I am happy to provide further details if needed.

Sincerely,
Andrea Gasparin
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of the University of Trieste
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