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**Subject: Recommendation letter Dr. A. Brugnoli**

Ladies, gentlemen,

I am full professor at the University of Twente, where I lead the Robotics and Mechatronics group. My carrier has been centred around innovative methods for the modelling, analysis and control of physical and especially robotic systems. In 2018 I was awarded with an ERC advancedgrant for the Portwings project (www.portwings.eu) and in 2022 with an ERC Proof of Concept related to this project. This project has the objective to gain new insights on the physical mechanisms underlying birds flight, with the aim of perfecting a bio-mimetic robotic bird.

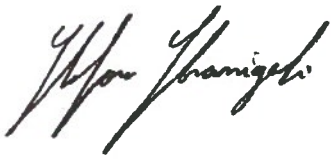
Dr. Andrea Brugnoli was hired in the Portwings team in November 2020. His expertise in the field of numerical discretisation of physics-based interconnected models made him a perfect candidate for the activities related to the numerical challenges of the project. His work has already lead to a first major paper on the structure-preserving discretisation of open systems of conservation laws, now under revision.

The professional and academic career of Andrea is remarkable. He holds a double degree in aerospace engineering from ISAE-SUPAERO and Politecnico di Milano, a research master in automatic control from Université Paris-Saclay and a PHD degree in automatic control from ISAE-SUPAERO. Throughout his studies and experiences, he has been living in three different foreign countries (France, Brazil and The Netherlands). This indubitably shows its openness towards new challenges and its ability in adapting to new environments.

During this year, Andrea has demonstrated to be an extremely talented, with a deep knowledge in his area of expertise, and capable of facing new scientific problems with enthusiasm and scientific rigor. I was particularly impressed by how rapidly Andrea was able to master the non trivial mathematical tools underlying the Portwings project. It is clear to me that he has a natural inclination for mathematics and its application to mechanical engineering problems.

For all these reasons, I consider Andrea to be a perfect candidate for the vacancy of assistant professor in sustainable aerostructures computational design at the Department of Mechanics, Structures and Materials at ISAE-SUPAERO. I am confident he will be able to develop cutting-edge research in the field of numerical modeling for mechanical systems.

Yours sincerely,



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