

Da: Ralph Martin martinrr@cardiff.ac.uk
Oggetto: Reference for Prof. Alberto Paoluzzi
Data: 19 dicembre 2021, 20:15
A: paolo.atzeni@uniroma3.it
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Dear Prof. Atzeni

I understand that Prof. Alberto Paoluzzi has recently retired, and is applying for the title of Professor Emeritus.

I am writing to you to express my full support for his application. Please forgive me for supplying it as an email rather than as a more formal letter, but I understand that the deadline is short, and Christmas and the New Year intervene.

Prof. Paoluzzi over his long career has made many distinguished contributions to the field of geometric modelling over the years, both in terms of his research contributions, and in terms of his broader support for the community. After writing one of the earliest solid modeling systems, he came up (in the 1990s) with the concept of PLaSM, providing a dimension independent algebraic calculus of shapes, which provided a very new way of both constructing shapes, and reasoning about them. This was very different to the kinds of interfaces used up until then for solid modelling, and allowed a more general way of thinking about shapes, uniform over dimensionality. A book was written describing it. PLaSM has stood the test of time - it is still in use today in the pyplasm package. Further noteworthy work on geometry and topology computation uses linear algebra and sparse matrices to represent generators / via boundary matrices, thus encoding a decomposition of Euclidean 3-space, and the Boolean algebra (CSG) generated by it. This allows solid Boolean forms to be evaluated using bitwise set algebra. A measure of the regard for these pieces of work is that in 2017 Alberto Paoluzzi received the honorific title of Pioneer of the Solid Modeling Association, awarded only to persons who have made significant contributions judged to have stood the test of time.

I thus believe that Alberto Paoluzzi richly deserves the title of Professor Emeritus, and I strongly recommend that this title be conferred upon him.

Your sincerely
Prof. Ralph Martin
Emeritus Professor of Geometric Computing
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