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OBITUARY | PROFESSOR JUN ONO FONSECA

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It is very sad to report on the premature death of Prof. Jun Sérgio Ono Fonseca on 14th October 2015.

Jun was a Professor at the *Federal University of Rio Grande do Sul*, Brazil, where he established, together with other colleagues, a strong group on *Applied Mechanics*. He received his *Mechanical Engineering* degree in 1985 from the *Federal University of Paraná* and his master degree at the prestigious *Federal University of Santa Catarina* in 1990, under the supervision of Prof. Carlos Alberto Selke, working on nonlinear finite elements. He moved to USA and obtained his doctoral degree at *The University of Michigan*, under the supervision of Prof. Noboru Kikuchi, working on topology of composite materials. He also had a sabbatical leave during 2005-6 at the *Technical University of Denmark* with Prof. Ole Sigmund on structural optimization.

Jun published many articles in journals and conferences and he considered the most three important ones the "An incremental Lagrangian formulation to the analysis of piezoelectric bodies subjected to geometric non-linearities", *International Journal for Numerical Methods in Engineering*, of 2004, "Strain energy maximization approach to the design of fully compliant mechanisms using topology optimization", in *Latin American Journal of Solids and Structures*, 2004 and "Complexity control in the topology optimization of continuum structures", published in the *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, 2003.

Jun supervised 9 doctoral thesis and 15 masters, which only represent a small part of his commitment with the education of young engineers. In fact, Jun was considered to be a professor who excelled in sharing the strong fundamentals he acquired along various years of intense dedication to master the area of Solid Mechanics.

Jun always supported the *Latin American Journal of Solids and Structures*. He was a member of the editorial board of the journal and was always supportive to the many changes *LAJSS* has experienced along the years. We all see Jun as a great man and a great lost for friends, family and for the engineering education.

Marcílio Alves

Editor, *Latin American Journal of Solids and Structures*,
On behalf of the whole *Editorial Board*

Some Particular Manifestations

I know Jun since 1987, during the organization of *COBEM'87*. We shared the same laboratory during our Florianópolis years, and I didn't have any doubts when choosing a name to fill the *Solid Mechanics* position in the *Mech. Eng. Dept.* of *UFRGS* at Porto Alegre back in 1997. Since then, we have been collaborating, researching, teaching, organizing events, and even playing soccer together. He worked actively until his last week. The *Solid Mechanics* position is open again, but this time I don't see anybody capable of replacing Jun. He took with him my respect, my admiration, and a good part of my professional life.

Prof. Rogério 'Rato' Marczak

Associate Editor, *Latin American Journal of Solids and Structures*

My first memories of Jun Fonseca date back to the late eighties, when I was a graduate student of *Mechanical Engineering* at the *Federal University of Santa Catarina*, eager to learn about computational mechanics and finite elements. Jun was then a young researcher working at *Grante*, the *Stress Analysis Group of the Department of Mechanical Engineering*. I remember him as a very dedicated and qualified professional, who had dared to develop his master's work on the numerical simulation of hyperelastic components, a nontrivial topic which he pioneered at *UFSC*. Jun was always a reference of commitment to his colleagues, both students and staff. When I decided to pursue my PhD at the *Federal University of Rio Grande do Sul*, I chose Jun to be my co-advisor, because I was sure his experience would be of great importance for my work. During this period, Jun brokered my visit to *Denmark's Technical University* to study Topology Optimization in a course taught by renowned researchers, such as Martin Bendsoe, Ole Sigmund,

Pierre Duysinx, Pauli Pedersen and other world leaders in area. In addition to the undoubted excellence of the course, I was delighted to see how Jun was well known and respected abroad. Since the 2000s our friendship and my respect for him as a professional and as a person only grew. He visited *UDESC* a couple of times and participated in workshops and graduate evaluation boards here. His premature decease was deeply felt by the entire academic community who had the privilege to work with him. I can say without any doubt that Jun's legacy is his academic example of integrity, ethics and competence.

Prof. Pablo Andrés Muñoz Rojas

Associate Editor, *Latin American Journal of Solids and Structures*

It was with great sadness that I received the news of Jun Fonseca's all too early decease. I have known Jun since our Ph.D.-time where we met in Ann Arbor and shared joint research interests in compliant mechanism and material design. I have continuously enjoyed contact with him since then, including hosting of his sabbatical here in Lyngby in 2005-6 as well as a recent collaboration with him and his Ph.D.-student Daniel M. De Leon that resulted in a joint paper on stress constrained compliant mechanism design. He will be greatly missed.

Prof. Ole Sigmund

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