



UNIVERSITÀ DEGLI STUDI DELL'AQUILA

FACOLTÀ DI INGEGNERIA

Prof. Amabile Tatone

Curriculum scientifico

(Aggiornato il 17/11/2010)

Associate Professor since 1992 at the Department of Structures, Water and Soil Engineering of the University of L'Aquila (Italy). Research Assistant since 1982 up to 1992.

Past taught courses: Applied Mathematics, Theory of Structures, Mechanics of Solids.

Member of the PhD course in Mathematical-Physics Modeling in Engineering since 2001 (deputy chairman until 2005) at the University of L'Aquila.

Research area: Continuum Mechanics.

Past research topics:

extension of a direct beam model endowed with a warping descriptor for cross sections;
models for laminated beams including thickness deformation, focusing on the way the notion of interlaminar stress arises in the modeling;
coupling of a beam and piezoelectric patches aiming at vibration damping, with measurements on an experimental setup;
second gradient continuum models and definition of related stresses of different order;
wave propagation for blood flow in curved arteries;
solute diffusion through curved artery walls.

Current research topics:

interaction between solid and fluid phases of the vitreous during eye natural motions and induced traction on the retina; contact interactions between a contractile elastic body and a substrate; growth mechanisms in the evolution of saccular aneurysms.

REPETTO R, TATONE A., TESTA A, COLANGELI E (2010). Traction on the Retina Induced by Saccadic Eye Movements in the Presence of Posterior Vitreous Detachment. BIOMECHANICS AND MODELING IN MECHANOBIOLOGY, ISSN: 1617-7959

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- PONTRELLI G, TATONE A. (2007). Concentration wave of a solute in an artery: the influence of curvature. COMPUTER METHODS IN BIOMECHANICS AND BIOMEDICAL ENGINEERING, vol. 10; p. 129-136, ISSN: 1025-5842, doi: 10.1080/10255840601046048
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- PONTRELLI G, TATONE A. (2005). Blood flow through a curved artery. In: PRIMICERIO M., SPIGLER R., VALENTE W.. Applied and Industrial Mathematics in Italy. vol. 69, p. 451-462, World Scientific, ISBN/ISSN: 978-981-256-368-2
- TATONE A., DI EGIDIO A, CONTENUTO A (2010). Dynamics of a Soft Contractile Body on a Hard Support. In: Proceedings of the 1st ICCCM09 International Conference on Computational Contact Mechanics. Lecce, Italy, Sept. 16-18, 2009, Springer
- CONTENUTO A, DI EGIDIO A, TATONE A. (2009). Impact, bouncing and motility. In: Aimeta 19th National Congress. Ancona (Italy), 14-17 September 2009
- DI CARLO A, SANSALONE V, TATONE A., VARANO V (2009). Growth and Remodeling of Intracranial Saccular Aneurysms. In: COMSOL Conference 2009. Milan, October 14-16, 2009
- COLANGELI E, REPETTO R, TATONE A., TESTA A (2007). Traction on the retina induced by saccadic movements in the presence of Posterior Vitreous Detachment. In: European COMSOL Conference. Grenoble,

France, October 23--24, 2007

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