業績書（教育職員免許法施行規則第22条の6号関係）

氏　　　名	福長　正考	学　　位	東北大学理学博士
担当授業科目	微分Ⅱ，積分，微分方程式，確率・統計		

1　経歴，学会及び社会における活動等

仙台向山高校非常勤講師　　1988年3月〜2005年4月
日本大学工学部非常勤講師　1989年4月〜現在

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2　著　　書

著　書　名	単著・共著の別	発　行　所　名	刊行年月日	備　考

3　学術論文等

学術論文等の名称	単独・共同の別	発表雑誌等名	発行年月日	備　考
An Operational method for Ordinary Differential Equations Based on Integration	単独	Intern. J. Appl. Math. Vol. 20, pp.29 - 49	2007	
An Operational method for Ordinary Differential Equations Based on Integration. II. Applicatons	単独	Intern. J. Appl. Math. Vol. 20, pp. 745-774	2007	
A nonlinear fractional derivative model of impulse motion for viscoelastic materials	共同	Physica Scripta, T136, 2009, 014010 (6 pages).	2009	

Nonlinear Fractional Derivative Models of Viscoelastic Impact Dymamics Based on Entropy Elasticity and Generalized Maxwell Law	共同	Journal of Computational and Nonlinear Dynamics Vol.6, 021005 (6 pages).	2011	
A High Speed Algorithm for Computation of Fractional Differentiation and Integration	共同	Philosophical Transactions of R. Soc. A, 371, 20121052 (16 pages).	2013	
Comparison of Fractional Derivative Models for Finite Deformation with Experiments of Impulse Response,	共同	Journal of Vibration and Control, vol. 20, 1033-1041.	2014	
Fractional Derivative Constitutive Models for Finite Deformation of Viscoelastic Materials	共同	Journal of Computations and Nonlinear Dynamics,vol. 10, 061002, 8 pages, (2015).	2015	

4　学会発表等

発 表 課 題 の 名 称	単独・共同の別	発表学会等の名称	発表年月日	備　考
On the forms of Source Terms in Fractional Differential Equations,	単独	The 2nd IFAC workshop on Fractional Differentiation and its Applications FDA'06}, Eds. A.Oustalop, Port, Portugal, 2006	2006 年 7 月 19-21 日	
Impulse Responses of Nonlinear Fractional Derivative Model	共同	The 3rd IFAC workshop on Fractional Differentiation and its Applications FDA'08}, Nov. 5-7, 2008, Cankaya University, Ankara, Turkey	2008 年 11 月 5-7 日	

Analysis of Impulse Response of a Gel by Nonlinear Fractional Derivative Models,	共同	International Design Engineering Technical Conferences, Computers and Information in Engineering Conference, San Diego, California, U.S.A.,	2009 年 8 月 30 日－9 月 2 日	
Nonlinear Fractional Stress-Strain Relations for Polymer Gels Based on the Generalized Maxwell Model	共同	同上	同上	
Solution of Fractional Differential Equations with Variable Coefficients Based on Fractional Integration	単独	The 4th IFAC workshop on Fractional Differentiation and its Applications FDA'10}, Octber 18 - 20, 2010, Badajos, Spain	2010 年 10 月 18-20 日	
Nonlinear Fractional Derivative Models for Viscoelastic Materials. I. Physics and Constitutive Equations	共同	同上	同上	
Nonlinear Fractional Derivative Models for Viscoelastic Materials. II. Comparison of Models with Experimental Data	共同	同上	同上	
High Speed Algorithm for Computation of Fractional Differentiation and Integration	共同	International Design Engineering Technical Conferences, Computers and Information in Engineering Conference,	2011 年 8 月 28-31 日	
Three-Dimensional Fractional Derivative Models for Finite Deformation,	共同	IDETC/CIE 2011 August 28-31, Washington, DC. USA 同上	同上	

Comparison of Fractional Derivative Models for Finite Deformation with Experiments of Impulse Response,	共同	5th Symposium on Fractional Differentiation and its Applications FDA'10}, May 14 - 17, 2012, Hohai University, Nanjing, China	2012年5月14-21日	
A Hybrid Fractional Differentiation	共同	同上	同上	
Application of fractional constitutive model for finite deformation to viscoelastic materials	共同	International Conference on Fractional Differentiation and its Applications Catania, 23-25 June 2014	2014年6月23-25日	
Fractional derivative models of viscoelastic materials for large extensions	共同	同上	同上	

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