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|  | Jeongho Ahn Assistant Professor of Mathematics  (870)680-8181  jahn@astate.edu |  |

### Current Position

Position Title: Assistant Professor of Mathematics

Current Academic Rank: Assistant Professor

Rank Since: Fall 2009

### Degrees

|  |  |
| --- | --- |
| Ph D | Mathematics: University of Iowa, Iowa City, Iowa 2003 |
| MS | Mathematics: Kyung-Hee University, Seoul, South Korea 1991 |
| BS | Mathematics: Kyunh-Hee University, Seoul, South Korea 1989 |

### Scholarly Contributions and Creative Productions

Grants ADHE = Arkansas Department of Higher Education

SURF = Student Undergraduate Research Fellowship Program

ASGC = Arkansas Space Grant Consortium

ADHE-SURF: “The motion of particles with complementarity

Conditions.” January 2010 – November 2010 $3,900

ADHE-SURF: “Dynamic contact of particles with adhesion.”

January 2010 – November 2010 $3,900

ASGC: “The mathematical modeling of a space elevator.”

May 2012 – May 2013 $3,600

ADHE-SURF: “Numerical approaches to thermoelastic rods with

dynamic contact.” January 2013 – November 2013 $3,600

Book

“Instructor’s Solutions Manual for Elementary Numerical Analysis by

Kendall E. Akinson andWeimin Han”, 3rd edition, joint with Dr. David

Chien and Dr. Zongmi Wu, John Wiley & Sons, Inc., (350 pages)

Journal Publications

J. Ahn, J. Calhoun (2013), “dynamic contact of viscoelastic

bodies with two obstacles: Mathematical and numerical

approaches”, *Electronic Journal of Differential Equations,*

2013 (85), 1-23.

J. Ahn, K. Kuttler, M. Shillor (2012), “Dynamic Contact of Two Gao Beams”, *Electronic Journal of Differential Equations,* 2012 (194), 1-42.

J. Ahn (2012), “A viscoelastic Timoshenko Beam with Coulomb law of friction”, *Applied Mathematics and Computation*, 218, 7078-7099.

J. Ahn, D. Stewart (2009), “A viscoelastic Timoshenko beam with dynamic frictionless”, *Discrete and continuous dynamic systems series B*, 12(1), 1-22.

J. Ahn (2009), “Dynamic frictionless contact in linear viscoelasticity”, *IMA Journal of Numerical Analysis*, 29 (2009), pp. 43-71.

J. Ahn (2008), “Thick obstacle problems with dynamic adhesive contact”, *ESAIM: Mathematical Modelling and Numerical Analysis*, 43, 1021-1046.

J. Ahn, D. Stewart (2007), “An Euler-Bernoulli beam with

dynamic contact: penalty approximation and existence”,

*Numerical Functional Analysis and Optimization*, 28,

pp. 1003-1026.

J. Ahn (2007), “A vibrating string with dynamic frictionless

impact”, *Applied Numerical Mathematics*, 57, pp. 861 – 884

J. Ahn, D. Stewart (2006) “Existence of solution for a class of

impact problems without viscosity” *SIAM J. Math. Anal.,*

38 pp. 37 – 63 (electronic).

J. Ahn, D. Stewart (2005), “An Euler-Bernoulli Beam with dynamic

contact: discretization, convergence, and numerical Results”,

*SIAM J. Numer. Anal.*, 43, pp. 1455 – 1480 (electronic).

J. Ahn, D. Stewart (2002), “A simplified model of impact” *Contact*

*Mechanics”, Proceedings of the Third Contact Mechanics*

*International Symposium, Kluwer Acad.,* pp. 309 – 316.

**Recent Selected Presentations**

“Analysis and simulations of a dynamic thermoviscoelstic rod and

linear beam system”, Euromech 514, France, March, 2012

“The motion of a Gao beam between two stops” AMMCS2011,

Wilfrid Laurier University, Waterloo, Ontario, Canada, July 2011

“Vibration of a Gao beam between two stops” AMS 2011 Spring

Central Section Meeting, University of Iowa, Iowa City, Iowa,

March 2011

“A viscoelastic Timoshenko beam with Coulomb’s law of friction”

SIAM Annual Meeting, Contributed talk, Denver, Colorado,

July, 2009 (Session Chair)

“A viscoelastic Timoshenko Beam with dynamic impact” SIAM

Annual Meeting, Minisymposium, San Diego, California, July 2008

### Professional Service

**University Service**

Undergraduate Enrollment and Academic Policy Committee

2011-present

**College Service**

A judge for Science Fair 2010 – 2012

Crowley’s Ridge Best Robotics Competition, Judge for

Sprit/Sportsmanship 2009 – present

**Department Service**

Curriculum Committee, Calculus Committee 2009 – present

**Professional organizations**

Mathematical Reviewer for MathSci 2009 – present

McNair Achievement Program Mentor 2011-2012

Referee for peer review journals 2008 – present

Reviewer for Sullivan, Calculus 4th edition (chapter 2-3) 2012

### Teaching

Fall 2008 Courses:

|  |
| --- |
| MATH 2204 003 - Calculus I |
| MATH 2204 006 - Calculus I |
| MATH 2214 001 - Calculus II |
| MATH 2214 002 - Calculus II |
| MATH 2214 003 - Calculus II |
| MATH 2214 004 - Calculus II |

Spring 2009 Courses:

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| --- |
| MATH 2204 001 - Calculus I |
| MATH 2204 004 - Calculus I |
| MATH 3254 001 - Calculus III |
| MATH 3254 002 - Calculus III |
| MATH 4533 001 - Numerical Methods |
| MATH 5533 1 - NUMERICAL METHODS |

Summer 2009 Courses:

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| MATH 2204 001 - Calculus I |

Fall 2009 Courses:

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| MATH 2214 001 - Calculus II |
| MATH 2214 002 - Calculus II |
| MATH 2214 003 - Calculus II |
| MATH 2214 004 - Calculus II |
| MATH 3273 001 - Applied Complex Analysis |

Spring 2010 Courses:

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| MATH 3254 001 - Calculus III |
| MATH 3254 002 - Calculus III |
| MATH 4533 001 - Numerical Methods |
| MATH 5533 1 - NUMERICAL METHODS |

Summer 2010 Courses:

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| MATH 2204 001 - Calculus I |

Fall 2010 Courses:

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| MATH 2214 001 - Calculus II |
| MATH 2214 002 - Calculus II |
| MATH 2214 003 - Calculus II |
| MATH 2214 004 - Calculus II |
| MATH 3273 001 - Applied Complex Analysis |

Spring 2011 Courses:

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| --- |
| MATH 2204 001 - Calculus I |
| MATH 2204 004 - Calculus I |
| MATH 4533 001 - Numerical Methods |
| MATH 459V 001 - Special Problems in Mathematics |
| MATH 5533 1 - NUMERICAL METHODS |

Summer 2011 Courses:

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| MATH 3254 001 - Calculus III |

Fall 2011 Courses:

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| --- |
| MATH 2214 001 - Calculus II |
| MATH 2214 002 - Calculus II |
| MATH 2214 H03 - HNRS CALCULUS II |
| MATH 3273 001 - Applied Complex Analysis |

Spring 2012 Courses:

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| --- |
| MATH 4533 001 - Numerical Methods |
| MATH 5533 1 - NUMERICAL METHODS |

Summer 2012 Courses:

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| --- |
| MATH 3254 001 - Calculus III |

Fall 2012 Courses:

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| --- |
| MATH 2214 001 - CALCULUS II |
| MATH 2214 002 - CALCULUS II |
| MATH 2214 H03 - HNRS CALCULUS II |
| MATH 2214 H04 - HNRS CALCULUS II |
| MATH 3273 001 - APPLIED COMPLEX ANALYSIS |
| MATH 689V 001 - THESIS PARTIAL DIFF EQUATIONS |