

A Word from the Editor

This issue of the *Mathematics Exchange* comes with six interesting articles that I hope our readers will find informative and inspiring.

The first article is by Jie Cai, currently a graduate student of Mathematics at Ball State University. Jie explains how topological theorems can be used to solve some real-world problems like stabilizing a wobbly dinner table.

Brittany Miller, Laura Stibich, and Julie Moore, who are currently Mathematics majors at Saint Francis University, Pennsylvania, are co-authors of the second article. They study a certain equivalence of metric spaces and investigate an invariant for spaces under this equivalence.

The third article is by Neal Coleman. Neal is a former student of Ball State who is currently pursuing a PhD in Mathematics at Indiana University. In this article Neal discusses the derivation of the Navier-Stokes equations from basic principles.

The fourth article of this issue is on Hermite polynomials and their connection to the quantum harmonic oscillator. Christos Aravanis, the author of the article, is a senior majoring in Mathematics and Theoretical Physics at Athens University, Greece.

The fifth article narrates the experience of five former Ball State students who attended a recent conference of the National Council of Teachers of Mathematics. Mark Augustyn, Lisa Dobson, Michael Hosking, Nicole Keenan and Zachary Van Duzer, all former Mathematics Education majors, share their experience which they say is having a tremendous impact in their professional career as teachers in various schools around the nation.

Finally, Cameron Farnsworth, a former student of Ball State University discusses his learning experience at a summer school that played a pivotal role in his decision to pursue graduate study in Mathematics.

As always, this issue of the *Mathematics Exchange* offers two problems in its Problem Section. We encourage our undergraduate readers to send their solutions to any of the editors.

We hope that you will enjoy reading this issue of the *Mathematics Exchange* and we welcome and encourage ideas on how we can better serve our readers.

Ahmed Mohammed