

A Word from the Editor

The editorial team of the *Mathematics Exchange* is pleased to present this latest issue which contains five articles on diverse areas of Mathematical Sciences.

The first two articles continue the study initiated in an article that appeared on the last issue of the *Mathematics Exchange* [see B. Miller, L. Stibich, and J. Moore, *An invariant of metric spaces under bornologous equivalences*, *Mathematics Exchange*, **7** (2010) 12–19].

The third article presents an application of “Graphical Modeling” to Bayesian networks. The article demonstrates how graph theoretic tools can be combined with probability theory to provide a graphical model for various application oriented scientific studies.

This is followed by an article that examines a family of discrete, non-linear dynamical systems that consist of one parameter cubic polynomials. The author explores their bifurcation diagrams and uses various methods to examine closely those that exhibit chaotic behavior.

The last article starts by pointing out that a cataract surgery, which is routinely carried out in the United States, may change the natural astigmatism of the human eye. The authors of the article propose a model that improves the current medical practice of correcting such surgically induced astigmatism in patients.

Finally, in keeping with what has now become a standard tradition for the *Mathematics Exchange*, we have two problems in the Problems Section, and we encourage readers to send their solutions to any of the editors.

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

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