

For a calendar of technical society meetings in the Mid-Hudson Valley go to:
<http://pok.acm.org/calendar.html> and/or to MHVLUG's calendar at <http://hvstem.org/>



Poughkeepsie Chapter of the Association For Computing Machinery

```
      aaa          ccccccc      mmmmmmm mmmmmmm
      a  a          cc   cc      mm mm   mm mm
      aa  aa        cc   c       mm  mm mm  mm
      aaaaaaaaaa    cc          mm   mmm   mm
      aa   aa       cc   c       mm   m   mm  MEETING NOTICE
      aa   aa       cc   cc      mm          mm
      aa   aa       cccccccc    mm          mm  Free and open to the public
```

Program: Secure Data Transmission: The Mathematics Behind Identification Numbers and Check Digit Schemes

When: 7:30 pm, Monday, April 18th, 2016

Where: **Hancock Center, Room 2023, Marist College** **Meeting Location Changed**

Directions: Building 16 on the map at <http://www.marist.edu/welcome/map.html>

Parking: Please park at black dot #11 on <http://www.marist.edu/welcome/map.html> (the lot North of the Hancock Center #16) or in the lot East of Route 9, S/E of the former Main Entrance.

Speaker: Dr. Joseph Kirtland

About the Program: Identification numbers, such as credit card numbers, ISBNs, UPCs, and vehicle identification numbers, are used to identify individual items, specific products, people, accounts, and documents. Each time an identification number is transmitted, there is a chance that an error in the number will occur. To combat this problem, many identification number systems include a check digit and a mathematical calculation to determine if the number received was the number sent. This talk will present the mathematics behind and the reliability of a variety of schemes used today, including one developed by IBM, and end with a scheme that will find and automatically correct errors.

About the Speaker: Joseph Kirtland is a professor of mathematics at Marist College, where he has taught since 1992. He received his B.S. from Syracuse University and his Ph.D. from the University of New Hampshire. His professional interests are in finite group theory (an area from abstract algebra), mathematics education, and the applications of group theory to cryptography and check digit schemes.

Joseph Kirtland has written numerous articles on a variety of research topics in finite group theory. Additionally, he studies the application of group theory to the creation and use of check digit schemes. Based on his efforts, he wrote a book, *Identification Numbers and Check Digit Schemes*, published by the Mathematical Association of America (MAA). In 2002, this book won the Beckenback Book Prize, which recognizes the author of a distinguished, innovative book published by the MAA.

Joseph Kirtland enjoys running, hiking, basketball, poetry, and playing fantasy baseball.



Cost: Our meeting is **Free** and open to the public

Dinner: 6:00 pm, Palace Diner, 845.473.1576

Map and menu: www.thepalacediner.com

All are welcome to join us for dinner.

We thank Marist College for hosting the chapter's meetings.

Refreshments are served after the meeting.

For further information, email collier@acm.org or call 845.522.1971.

P - L - E - A - S - E P - O - S - T