

Virginia Tech Department of Mathematics

Faculty Position in the Mathematics of Cryptography and Coding Theory

The Virginia Tech Department of Mathematics anticipates a tenure-track opening in the mathematics of cryptography and coding theory with a start date of August 10, 2020, at the Blacksburg, VA, campus. Areas of interest include, but are not limited to, applied algebra, algebraic geometry, combinatorics, or number theory, with particular preference given to candidates whose research directly touches cryptography, cryptanalysis, or coding theory.

Appointment as an Assistant Professor of Mathematics is anticipated, but exceptional senior candidates may be considered for positions of Associate Professor of Mathematics or Professor of Mathematics.

Job requirements include a Ph.D. in mathematics or a related field at the time of appointment and an active research program, or, for new Ph.D.'s, strong promise for developing an active research program. It is desired that candidates have a record of achievement, as might be demonstrated during a postdoctoral or previous faculty appointment. The successful candidate will be expected to establish a distinguished research program with the potential for interdisciplinary impact and to provide effective instruction and advising to a diverse population of undergraduate and graduate students. Additional responsibilities include: continuing development of professional capabilities and scholarly activities; curriculum development; participation in department, college, and university governance; and professional service. Occasional travel to attend conferences and meetings will be required.

Diversity, equity, and inclusion are core values at Virginia Tech and the College of Science. Our excellence can only be fully realized by faculty, students, and staff who share our commitment to these values. Successful candidates for our faculty positions will demonstrate evidence of a commitment to broadening participation and advancing equity and inclusion. The Department of Mathematics seeks candidates whose research, teaching, or service has prepared them to contribute to our commitment to diversity and inclusion in higher education.

Virginia Tech provides many opportunities for faculty engagement in transdisciplinary research, curriculum, and/or outreach. The successful candidate may be especially interested in the Commonwealth Cyber Initiative (CCI), the Integrated Security Destination Area (ISDA), the Division of Computational Modeling and Data Analytics (CMDA), and the Ted and Karyn Hume Center for National Security and Technology (Hume).

CCI is a \$20 million per year Virginia initiative, coordinated by Virginia Tech, to position Virginia as a world leader in cybersecurity by creating an ecosystem of cyber-related research, education, and engagement. CCI is a multi-institution state-wide effort to build an ecosystem of research, education, and innovation in next-generation cybersecurity technologies.

The ISDA seeks to understand and foster a world in which individuals, institutions and nations are secured by technology and social systems that follow ethical principles and promote values of social justice. The ISDA targets problems in cyber-physical system security; security governance,

standards, and frameworks; privacy and ethics; and global security in physical and social environments.

CMDA is a multi-department effort (with Mathematics, Statistics, and Computer Science) to educate modern quantitative scientists by developing their knowledge base and skillset in computationally intensive techniques for modeling and inference. The successful candidate may develop and teach cryptography courses that support the CMDA program.

Hume cultivates the next generation of national security leaders by developing and executing research and experiential learning opportunities to engage students. Research programs support graduate assistantships through sponsored research with defense and intelligence organizations. Opportunities for collaborative research with Hume may require U.S. citizenship.

Applications must be submitted online <http://careers.pageuppeople.com/968/cw/en-us/job/511252/open-rank-faculty-in-mathematics-of-cryptography-and-coding-theory>

and should include:

- A cover letter
- Curriculum Vitae
- At least four (4) references
- A research statement
- A teaching statement
- A diversity statement

Applications received by October 30, 2019, will receive full consideration. Review of applications is ongoing and will continue until the position is filled.

Each applicant should follow the instructions in the online application system to request that four references submit letters of recommendation, or letters can be emailed to crypto_search@math.vt.edu. The faculty handbook (available at <http://www.provost.vt.edu>) gives a complete description of faculty responsibilities. As part of the hiring process, the successful applicant must pass a criminal background check. Questions about the search may be addressed to the chair of the search committee (Gretchen Matthews) or the Department Chair (Eric de Sturler) by email to crypto_search@math.vt.edu.

Virginia Tech is an Equal Opportunity / Affirmative Action Institution. Virginia Tech has a strong commitment to the principle of diversity and, in that spirit, seeks a broad spectrum of candidates including women, minorities, veterans, and people with disabilities. Individuals with disabilities desiring accommodations in the application process should notify Ms. Leigh Ann Teel (lateel@vt.edu, 540-231-8269) or call TTY 1-800- 828-1120 by the application deadline. Virginia Tech is the recipient of a National Science Foundation ADVANCE Institutional Transformation Award to increase the participation of women in academic science and engineering careers.

Virginia Tech does not discriminate against employees, students, or applicants on the basis of age, color, disability, sex (including pregnancy), gender, gender identity, gender expression, genetic

information, national origin, political affiliation, race, religion, sexual orientation, or veteran status, or otherwise discriminate against employees or applicants who inquire about, discuss, or disclose their compensation or the compensation of other employees or applicants, or on any other basis protected by law.

For inquiries regarding non-discrimination policies, contact the Office for Equity and Accessibility at 540-231- 2010 or Virginia Tech, North End Center, Suite 2300 (0318), 300 Turner St. NW, Blacksburg, VA 24061.