

LETTERS TO THE EDITOR



Boycott collaboration with police

To the Mathematics Community,

In light of the extrajudicial murders by police of George Floyd, Breonna Taylor, Tony McDade and numerous others before them, and the subsequent brutality of the police response to protests, we call on the mathematics community to boycott working with police departments.

This is not an abstract call. Many of our colleagues can and do work with police departments to provide modeling and data work. For example, ICERM sponsored a workshop on Predictive Policing (https://icerm.brown.edu/topical_workshops/tw16-7-pp) which included ride-alongs with the Providence Police Department.

One of the organizers of this workshop is the founder of PredPol (<https://www.theverge.com/2018/4/26/17285058/predictive-policing-predpol-pentagon-ai-racial-bias>), a for-profit company which has lucrative contracts with police departments across the country, providing software that claims, among other things, to predict where crimes occur, and when they are gang related. Another organizer is an investor in PredPol (<https://dailybruin.com/2019/05/20/letter-to-the-editor-public-perception-of-predictive-policing-is-wrong-it-can-help-reduce-crime>).

An excellent summary of the feedback loops created by PredPol, and the racist consequences, can be found here: https://www.vice.com/en_us/article/xwbag4/academics-confirm-major-predictive-policing-algorithm-is-fundamentally-flawed.

There are also deep concerns about the use of machine learning, AI, and facial recognition technologies to justify and perpetuate oppression. See, for example: <https://www.technologyreview.com/2019/12/20/79/ai-face-recognition-racist-us-government-nist-study> and <https://www.nytimes.com/2019/07/10/opinion/facial-recognition-race.html>.

Given the structural racism and brutality in US policing, we do not believe that mathematicians should be collaborating with police departments in this manner. It is simply too easy to create a “scientific” veneer for racism. Please join us in committing to not collaborating with police. It is, at this moment, the very least we can do as a community.

**We invite readers to submit letters to the editor at notices-letters@ams.org.*

We demand that any algorithm with potential high impact face a public audit. For those who’d like to do more, participating in this audit process is potentially a proactive way to use mathematical expertise to prevent abuses of power. We also encourage mathematicians to work with community groups, oversight boards, and other organizations dedicated to developing alternatives to oppressive and racist practices. Examples of data science organizations to work with include Data 4 Black Lives (d4bl.org) and Black in AI (<https://blackinai.github.io>).

Finally, we call on departments with data science courses to implement learning outcomes that address the ethical, legal, and social implications of these tools.

A full list of signatures to this letter is available at <https://www.math-boycotts-police.net>. Most of the signatories hold, or are working towards, a PhD in mathematics. All signatories are invested in the ethical practices of the mathematics community.

—Tarik Aougab (Haverford College)

Federico Ardila (San Francisco State University)

Jayadev Athreya (University of Washington)

Edray Goins (Pomona College)

Christopher Hoffman (University of Washington)

Autumn Kent (University of Wisconsin)

Lily Khadjavi (Loyola Marymount University)

Cathy O’Neil (CEO, ORCAA)

Priyam Patel (University of Utah)

Katrin Wehrheim (University of California, Berkeley)

Response

ICERM hosted the Predictive Policing workshop in August 2016. In retrospect, we failed to transparently address the potential for data-driven techniques and algorithms to perpetuate bias and exacerbate violence against Blacks and other minorities at the hands of police. We should have been more vigilant about confronting in the workshop the risk of mathematics, algorithms, and technology being used to apply a veneer of objectivity to unfair procedures. ICERM encourages future programs developing mathematical and statistical tools to quantify bias and certify fairness in algorithms and data-based decisions.

—Brendan Hassett
Director, ICERM

Letter to the Editor

Dear Colleagues,

To boycott all interaction between mathematics and police, without any stated demands or termination criteria, fails to recognize the positive potential of mathematics in contributing to whatever concept of law enforcement is envisioned by the movement. We, as a community of mathematicians, and some of us as individuals, have at times failed to consider wider implications of our contributions. But we have also stepped up to rectify our collective missteps and propose solutions. Our logical insights and objective analyses have enormous capacity to impart meaningful force toward progress. When software developed from mathematical insights for use by law enforcement turns out to promote racist outcomes, it is irresponsible to launch a boycott, cutting short efforts to solve the problem. Without input from us, the status quo will persist, with all of its bias.

Instead of refusing our expertise, why not offer our services with increased fervor, both to improve how law enforcement is done and to evaluate the way sophisticated methods are employed? On this latter point we agree with the letter: as a unified professional community, we could set up a board or AMS committee to track and assess the use of mathematical and computational tools in law enforcement—and, for that matter, in all other endeavors where ethics and equity come into play. Demand accountability from those who offer or employ advanced techniques. Induce all participants to think intentionally about these issues at all stages of collaboration with extramathematical entities.

Withdrawal is not the solution. Positive engagement provides an opportunity to show the public the value of our skills in addition to exercising and exhibiting our empathy.

—Ezra Miller
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Statistical Science, Duke University*
math.duke.edu/people/ezra-miller

Cynthia Rudin
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Electrical and Computer Engineering,
Statistical Science, and Mathematics, Duke University*
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Response to “Letter to AMS Notices: Boycott collaboration with police”

I strongly support the examination of algorithms and their applications in terms of bias and social justice. We are currently at a moment of collective need to speak out against systemic racism, sexism and other forms of bias. In this process, it is critical to realize who our allies are, and to come together in common cause and not pull apart. When we engage in personal attacks and in casting doubt on our colleagues, particularly those working hard on these same common causes, we risk the destruction of the atmosphere needed to move forward.

—Daniel Krashen
*Professor, Department of Mathematics
Rutgers University*

False Impressions

When I received the announcement <https://awm-math.org/re-2021-noether-lecture/> from AWM that Andrea Bertozzi’s Emmy Noether lecture at JMM had been cancelled I was rather shocked. I had not seen the original announcement of her talk, so this was the first I had heard of the situation. I have to say that from the wording of the mea culpa I concluded that Prof. Bertozzi had said or written some overtly racist screed that had been discovered after she was selected to present her lecture. That was the only reason I could imagine for the level of embarrassment evidenced in the AWM abject apology.

To understand the situation better I looked at her research record and read abstracts of a number of her papers. I was more than shocked to discover that the reason for her exclusion was one of her areas of research. Andrea Bertozzi is an extremely distinguished scholar who has made remarkable contributions to a wide number of research and application areas. AWM should have been grateful to her for her willingness to give the Noether lecture under their auspices. To cancel the lecture was absurd. To cancel it with the announcement they made was a scandal. Dr. Bertozzi has been beyond gracious. But she and the entire mathematics community are owed the real apology here.

—Sol Garfunkel
Executive Director, COMAP