

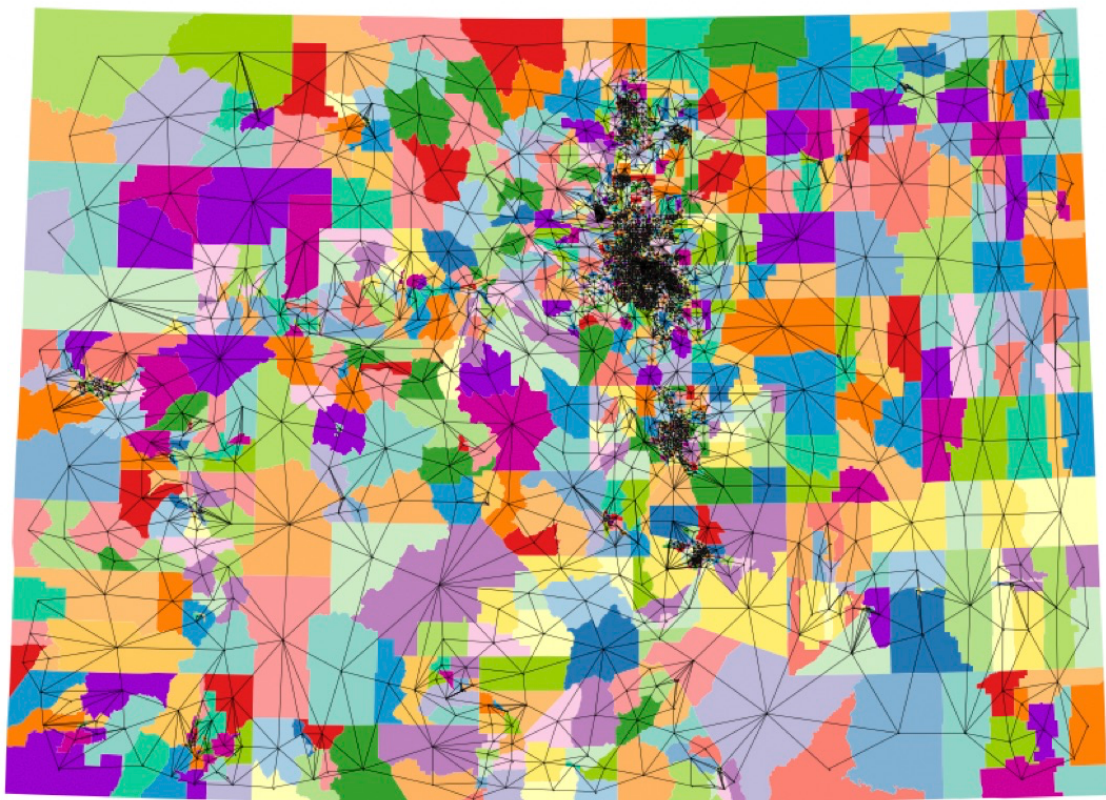
Mathematics of Voting and Representation

An ICMS Mathematics for Humanity workshop

Scientific Organisers

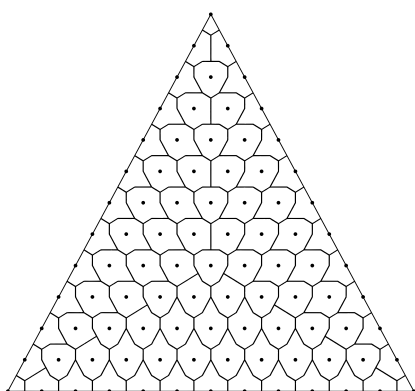
- Jeanne Clelland, University of Colorado Boulder
- David McCune, William Jewell College
- Michael Singer, University College London
- Ismar Volić, Wellesley College

Centered on topics that lie in the intersection of mathematics and democracy



Despite the differences in history and techniques, topics such as voting, representation, and districting have a common thread – they are motivated by the notion that mathematics can play an important role in making democracy work better for everyone.

Studying topics that lie in the intersection of mathematics and democracy is exciting and necessary. Topics such as voting, representation, and districting have a common thread -- they are motivated by the notion that mathematics can play an important role in making democracy work better for everyone. There is consequently a growing awareness that interweaving the research in these areas is not only of benefit to the scientific community but also to the public at large.



A quantitative point of view on the myriad of socio-economic and political forces at play can help identify social matters that can be tackled with mathematical tools. It can empower us to demand that mathematical rigour and transparency be introduced into politics, recognise when mathematics is being misused for political gain, and enact change in the political system based on sound mathematical evidence.

To find out more about the Mathematics for Humanity Programme, how to participate or apply for funding, please visit:

<https://www.icms.org.uk/funding-opportunities/mathematics-humanity>

About the workshop:

There are various strands of activity in this area, some more recent and some classical; for example, modern social choice theory has been around in some form since the 1780s, while rigorous mathematical approaches to districting are a recent development. Despite the differences in history and techniques, topics such as voting, representation, and districting have a common thread – they are motivated by the notion that mathematics can play an important role in making democracy work better for everyone. There is consequently a growing awareness that interweaving the research – and consequently the events featuring it – in these areas is desirable and necessary. This workshop will be guided by this principle.

This workshop aims to be interdisciplinary, bringing together researchers in the fields of computer science, economics, mathematics, and political science. The main themes of the workshop will be: social choice (theoretical and computational); proportional representation; and districting.

The workshop will take place in Edinburgh
10-14 June 2023

For details on how to participate please visit

<https://www.icms.org.uk/mathsofvotingandrepresentation>



Images Colorado Gerrymandering and Apportionment supplied by organisers