

VOTING RIGHTS DATA INSTITUTE

VRDI Organizers

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VRDI 2018 Website

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VRDI 2018 Slack

<https://vrdi2018.slack.com/>

Emergency Contacts

Tufts Police

(617) 627-6911

MIT Police

(617) 253-1212

Harvard Police

(617) 495-1212

Welcome to VRDI!

In this packet, you'll find basic information about the program and the schedule for week 1.

Scheduling

- This week only, we'll keep the group together all week. Mon-Tue are at TUFTS, Wed-Thu are at MIT, and Fri is at HARVARD/CMSA. In Weeks 2-6, we'll split up into smaller groups at the three sites, with all-group meetings on Friday afternoons. (And some Monday evening lectures.)
- This week only, the days start at 9am, which has travel time built in. (See schedule.) In Weeks 2-6, the official work hours are 10am-4pm. Please use tinyurl.com/gerrydaily to log your plans and progress each day.
- You can miss up to two weekdays over the six-week program for any reason, but we ask that you talk to us if you need to miss more days.
- Outside of the 10-4 work schedule, you're free to work on your projects at your own pace, get to know the other folks in the program, and explore the Boston area.

Working Groups & Projects

- You will be involved in research and tool-building projects related to redistricting and voting throughout the summer. You can read a brief list of project titles on page 2.

Work Sites for Week 1

Tufts University

Sophia Gordon Multipurpose Room
15 Talbot Avenue
Medford, Massachusetts

CMSA @ Harvard

Room G10
20 Garden Street
Cambridge, Massachusetts

MIT

Room 32-G882 (week 1)
Room 32-507 (week 2-6)
Ray and Maria Stata Center
32 Vassar Street
Cambridge, Massachusetts

Project Snapshot

- Every week you'll choose a new project to focus on or continue a project that is progressing well.
- Consider switching projects and groups every week or two.

Visitor Talks

- Talks will cover topics in voting and redistricting from political science, law, computer science, mathematics, and more.
- Week 1 talk locations and times are listed on page 3.

Project List

Ongoing/Background

1. Database Buildout
2. Precinct Geometry
3. Software Development Catch-All
4. <Your State Here>

Weekly Signup Projects

Basic tool production

5. Dual Graphs
6. Fast Algorithms for Compactness
7. Ecological Inference tool

Sampling

8. Build MCMC Sampler
9. Browser-based MCMC Demo
10. MCMC Benchmarks
11. Local sampling, p vs. ϵ theorems

Social science

12. Operationalize State Rules
13. Census Deep Dive
14. Communities of Interest
15. Legal Sleuthing
16. International Redistricting

Statistics

17. Partisan Regressions
18. VRA and Racially Polarized Voting

Math

19. Discrete Compactness
20. Graph Partitions
21. Perfect Matchings
22. Network Science
23. Measuring Population Distribution Effects
24. Splitting Energies
25. Voronoi/Power Diagrams
26. Spectral Approaches to Splitting

Other

27. Visualizations
28. Reading & teaching materials

Week 1 Talks & Events Schedule

Date	Location	Time	Event
Friday June 1	Latin Way Dorms 40 Lower Campus Road, Somerville, MA	2:00 p.m.	Dorms open for move-in Check in at front desk in Harleston Hall (next to Latin Way Dorms)
Sunday June 3	Orleans 60 Holland Street, Somerville, MA	6:00 p.m.	Welcome to Boston! Informal Get-Together at Orleans
Monday June 4	Tufts Sophia Gordon Multi Room	9:00 a.m.	Talk: Moon Duchin Project Kickoff & Overview
Monday June 4	Tufts Sophia Gordon Multi Room	10:30 a.m.	Logistics & Set up
Monday June 4	Tufts Sophia Gordon Multi Room	2:00 p.m.	VRDI Faculty Intros: Moon, Justin, Daryl, Aidan, Sam, Michael, and John
Monday June 4	Tufts Sophia Gordon Multi Room	3:00 p.m.	Talk: Michael Sarahan MGGG Software Overview
Tuesday June 5	Tufts Sophia Gordon Multi Room	9:00 a.m.	Talk: Sam Gutekunst Intro to Regression
Tuesday June 5	Tufts Sophia Gordon Multi Room	10:15 a.m.	Lab: GIS/markovchain
Tuesday June 5	Tufts Sophia Gordon Multi Room	3:00 p.m.	Talk: John O'Neill Making maps
Wednesday June 6	Latin Way Dorms 40 Lower Campus Road, Somerville, MA	9:00 a.m.	Meet at Latin Way C/D Entrance to travel to MIT
Wednesday June 6	MIT Building 32, Room G882	10:00 a.m.	Talk: Daryl Deford MCMC Overview
Wednesday June 6	MIT Building 32, Room G882	11:30 a.m.	Lab: GIS/markovchain

Wednesday June 6	MIT Building 32, Room G882	3:00 p.m.	Talk: Seth Drew Local MCMC
Wednesday June 6	30 Garrison Ave. #1 Somerville, MA	6:30 p.m.	Welcome Party at Justin's House
Thursday June 7	Latin Way Dorms 40 Lower Campus Road, Somerville, MA	9:00 a.m.	Meet at Latin Way C/D Entrance to travel to MIT
Thursday June 7	MIT Building 32, Room G882	10:00a.m.	Lab: GIS/markovchain
Thursday June 7	MIT Building 32, Room G882	3:00 p.m.	Talk: Lee Hachadoorian GIS Tools
Friday June 8	Latin Way Dorms 40 Lower Campus Road, Somerville, MA	9:30 a.m.	Meet at Latin Way C/D Entrance to travel to Harvard
Friday June 8	Harvard 20 Garden St., Room G10	10:00 a.m.	Talk: Justin Solomon Computational Geometry Overview
Friday June 8	Harvard 20 Garden St., Room G10	11:00 a.m.	Lab: GIS/markovchain Wrap up Week 1 Skillset
Friday June 8	Harvard 20 Garden St., Room G10	2:30 p.m.	Talk: Sam Wang TBD
Friday June 8	Harvard 20 Garden St., Room G10	3:00 p.m.	Week 2 Sign-Ups

Other Information about Boston

Getting Around

- Tufts, Harvard, and MIT lie on the MBTA **Red Line** (called the T). You can learn how to purchase an unlimited monthly pass for about \$85 on the [MBTA website](#). You should plan on getting a Charlie Card, which you can do at Harvard Square, in principle.
- Bikes are an *excellent* way to get around the area. There's a bikeshare service in town called BLUEbikes (formerly Hubway).
- Parking in downtown Boston, Cambridge, Medford, and Somerville can be expensive and hard to find, so we recommend using public transportation or bikes if possible.

What to Do

- You'll be in Boston for the 4th of July—some people will take the whole day off, and others will leave after lunch. Every year on that day the Boston Pops play at the Hatch Shell on the Esplanade, accompanied by [fireworks](#). The event is free but very hectic/busy.
- If you decide to stay in Boston after the workshop ends, you can visit the Boston Common for an outdoor performance of [Shakespeare on the Common](#) (July 18-Aug 5). This year they're putting on Richard III. Bonus: It's free!
- Boston has an incredible arts & music scene. There are too many options to list. Check out one of the (several) Boston arts calendars online. Essential museums in the area: MFA, ICA, Peabody Essex, Isabella Stewart Gardner, and the Harvard museums.
- There are commuter rails that run from South Station to Hyannis on Cape Cod, or from Porter Square to Concord (near Walden Pond), or from North Station to Gloucester, etc. Some trains have WiFi and let you take your bike on for free! For Cape Cod, there's also a (more expensive) [ferry option](#) from Long Wharf in Boston to Provincetown.
- For beaches closer to Boston, check out Revere Beach (on the Blue Line), Front Beach in Rockport (on the Newbury/Rockport Commuter Rail Line), or the M Street Beach in Dorchester (Bus #11).
- There's decent hiking very close to Tufts in the Middlesex Fells reservation.