Welcome

To the 2023 Michigan Cosmology Summer School

Dragan Huterer
Leinweber Center for Theoretical Physics
and Department of Physics
University of Michigan

Local organizing Committee:
Uendert Andrade, Johannes Lange, Minh Nguyen, Felipe Oliveira, Kuan Wang
Camille Avestruz, Gus Evrard and Dragan Huterer

Ann Arbor, Michigan

University of Michigan

Michigan Stadium (115,000)

Physics Department

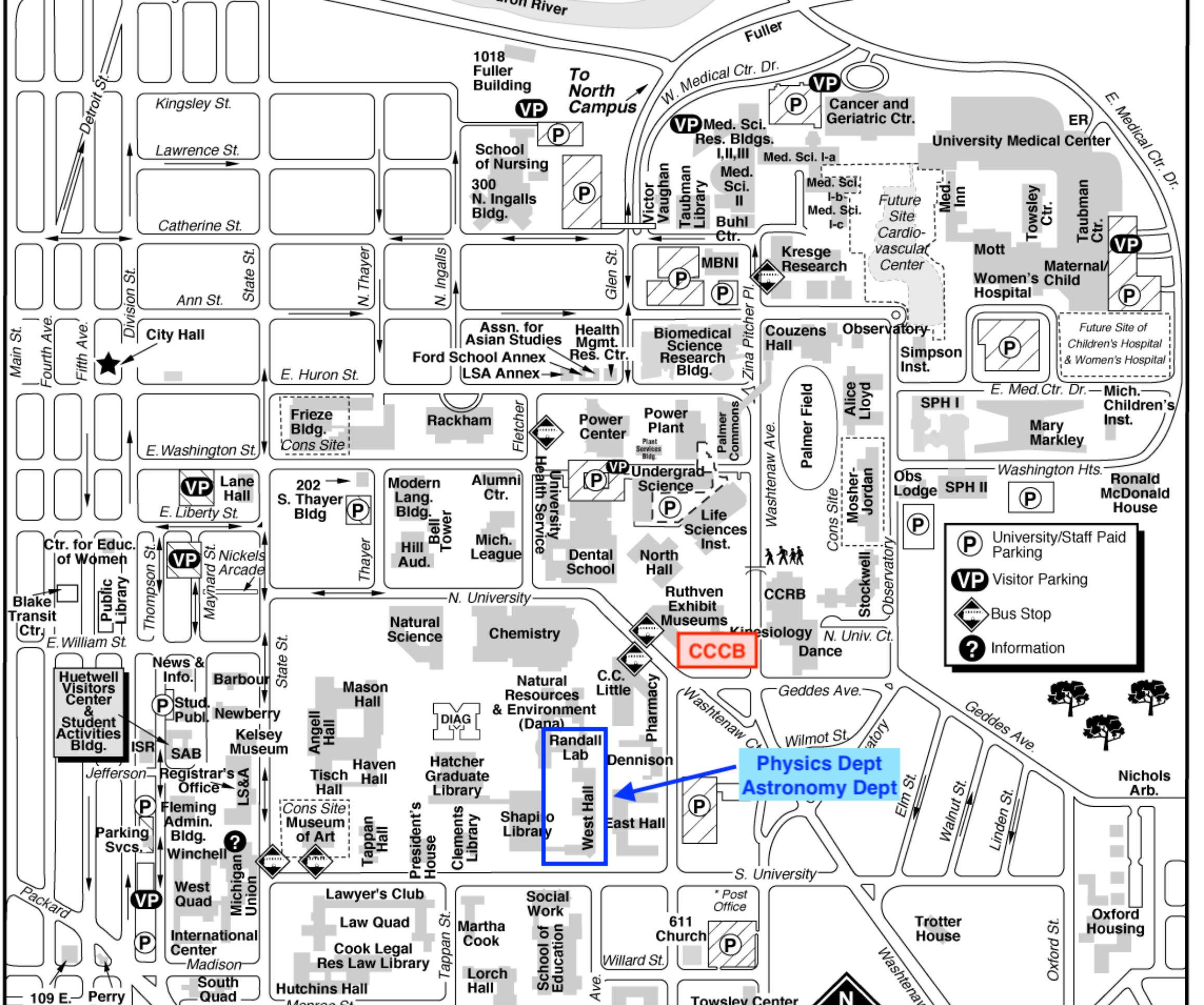
The School is generously supported by:

- **Leinweber Center for Theoretical Physics**
  - Established in 2017 after donation by Leinweber Foundation
  - (previously known as Michigan Center for Theoretical Physics)
  - 3 areas: particle theory, particle phenomenology, cosmology
  - Hiring postdocs, supporting graduate students
  - Supporting workshops, conferences and talks
  - “Headquarters” located in Randall Lab
  - Current director: Fred Adams

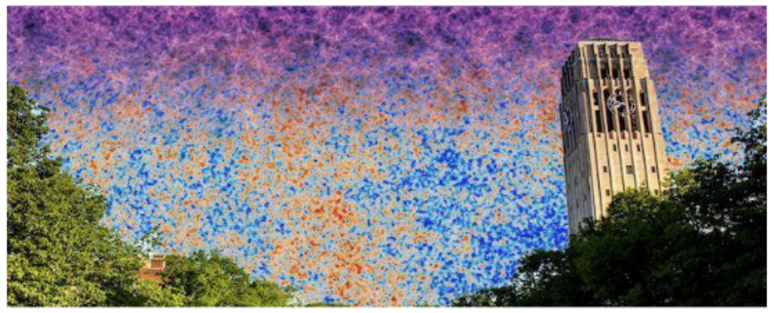
Larry Leinweber

- **Department of Energy**

- **University of Michigan (including Department of Physics)**


Huron River
Fuller
1018 Fuller Building
To North Campus
W. Medical Ctr. Dr.
E. Medical Ctr. Dr.
Detroit St.
Kingsley St.
Lawrence St.
Catherine St.
Ann St.
State St.
Division St.
Main St.
Fourth Ave.
Fifth Ave.
N. Thayer
N. Ingalls
Glen St.
City Hall
E. Huron St.
E. Washington St.
Frieze Bldg.
Cons Site
Rackham
Fletcher
School of Nursing
300 N. Ingalls Bldg.
Victor Vaughan
Taubman Library
Med. Sci. Res. Bldgs. I,II,III
Med. Sci. I-a
Med. Sci. I-b
Med. Sci. I-c
Med. Sci. II
Buhl Ctr.
Cancer and Geriatric Ctr.
ER
University Medical Center
Future Site Cardio-vascular Center
Med. Inn
Towsley Ctr.
Taubman Ctr.
Mott Women's Hospital
Maternal/ Child
MBNI
Kresge Research
Assn. for Asian Studies
Ford School Annex
LSA Annex
Health Mgmt. Res. Ctr.
Biomedical Science Research Bldg.
Zina Pitcher Pl.
Couzens Hall
Observatory
Simpson Inst.
Future Site of Children's Hospital & Women's Hospital
Power Center
Power Plant
Plant Services Bldg.
Palmer Commons
Undergrad Science
Life Sciences Inst.
Dental School
North Hall
Palmer Field
Alice Lloyd
Washtenaw Ave.
Cons Site
Mosher-Jordan
Stockwell
Observatory
SPH I
Mary Markley
Mich. Children's Inst.
Obs Lodge
SPH II
Washington Hts.
Ronald McDonald House
Lane Hall
E. Liberty St.
202 S. Thayer Bldg
Thayer
Modern Lang. Bldg.
Bell Tower
Hill Aud.
Alumni Ctr.
Mich. League
Ctr. for Educ. of Women
Blake Transit Ctr.
Public Library
Thompson St.
Maynard St.
Nickels Arcade
E. William St.
N. University
Natural Science
Chemistry
Ruthven Exhibit Museums
CCRB
Kinesiology
Dance
N. Univ. Ct.
CCCB
Huetwell Visitors Center & Student Activities Bldg.
News & Info.
Barbour
Stud. Publ.
Newberry
Kelsey Museum
ISR
SAB
Registrar's Office
LS&A
Jefferson
Fleming Admin. Bldg.
Parking Svcs.
Winchell
Michigan Union
West Quad
International Center
Madison
Packard
Cons Site
Museum of Art
Mason Hall
Angell Hall
Tisch Hall
Haven Hall
Tappan Hall
DIAG
Hatcher Graduate Library
President's House
Clements Library
Shapiro Library
Natural Resources & Environment (Dana)
Randall Lab
West Hall
Dennison
East Hall
C.C. Little
Pharmacy
Physics Dept
Astronomy Dept
Geddes Ave.
Wilmot St.
Elm St.
Walnut St.
Linden St.
Nichols Arb.
S. University
Lawyer's Club
Law Quad
Cook Legal Res Law Library
Hutchins Hall
Tappan St.
Martha Cook
Social Work
School of Education
Lorch Hall
Willard St.
* Post Office
611 Church
Trotter House
Oxford St.
Oxford Housing
Washtenaw Ave.
109 E. Madison
Perry
South Quad
Towsley Center
University/Staff Paid Parking
Visitor Parking
Bus Stop
Information

(Linked to from our school webpage)



LSA LEINWEBER CENTER
UNIVERSITY OF MICHIGAN

GUIDE TO ANN ARBOR: EAT/DRINK/DO

Around Central Campus (i.e. close to CCCB)

Lunch and Dinner

- Hola Seoul: Go-to spot for Korean-Mexican fusion food. They do great Korean fried chicken as well.
- One Bowl: Pan-Asian cafe offering noodle soups, from pho to ramen, plus curries & Korean food in casual digs. Lunch can be noticeably cheaper than dinner but dinner portions are sizable.
- Sweeting: A Taiwanese Boba shop but they offer a nice selection of lunch and snack options. Good food. Fast service. (Note that this is the one on 1205 S University)
- Lan City Noodle Bar: Known for their hand-pulled noodles.
- Tomukun: Noodle bar and Korean BBQ (two separate restaurants next to each other). Big portions, decent price, big selection.
- Totoro: Sleek yet casual restaurant for Japanese specialties such as tempura, udon and creative sushi rolls.
- Mama Satto: Another casual option for Japanese food.
- Rich J.C. Korean Cafe: Good Korean bibimbap and more. Limited bar-style seating, best for groups

	Monday	Tuesday	Wednesday	Thursday	Friday
8:30am- 9:10am	Coffee and pastries Welcome	Coffee and pastries	Coffee and pastries	Coffee and pastries	Coffee and pastries
9:10am - 9:50am	**van den Bosch (1)** Halo Occupation Modeling	**van den Bosch (2)** The Galaxy-Halo connection	**Bernstein (1)** Weak gravitational lensing: theory	**Ferreira (1)** Dark matter models	**Gluscevic (1)** Cosmological probes of dark matter
9:50am - 10:00am	Short Break	Short Break	Short Break	Short Break	Short Break
10:00am - 10:40am	**van den Bosch (1)** Halo Occupation Modeling	**van den Bosch (2)** The Galaxy-Halo connection	**Bernstein (1)** Weak gravitational lensing: theory	**Ferreira (1)** Dark matter models	**Gluscevic (1)** Cosmological probes of dark matter
10:40am - 11:00am	Longer Break	Longer Break	Longer Break	Longer Break	Longer Break
11:00am - 11:40pm	**Holder (1)** CMB, Power spectra and correlations	**Meyers (2)** Inflationary insights with the CMB	**Ishida (1)** Can ML solve my problem?	**Bernstein (2)** Weak gravitational lensing: measurements	**Pogosian (2)** Dark energy and modified gravity
11:40am - 11:50am	Short Break	Short Break	Short Break	Short Break	Short Break
11:50am - 12:30pm	**Holder (1)** CMB, Power spectra and correlations	**Meyers (2)** Inflationary insights with the CMB	**Ishida (1)** Can ML solve my problem?	**Bernstein (2)** Weak gravitational lensing: measurements	**Pogosian (2)** Dark energy and modified gravity
12:30pm - 2:00 pm	Lunch on own	Lunch on own	Kayaking trip with lunch boxes waiting for pickup	Lunch on own	Lunch on own
2:00pm - 2:40pm	**Meyers (1)** Cosmic neutrinos and other relics with the CMB	**Holder (2)** CMB probes LSS: Lensing & SZ effects		**Pogosian (1)** Dark energy and modified gravity	**Ferreira (2)** Dark matter models
2:40am - 2:50am	Short Break	Short Break		Short Break	Short Break
2:50pm - 3:30pm	**Meyers (1)** Cosmic neutrinos and other relics with the CMB	**Holder (2)** CMB probes LSS: Lensing & SZ effects		**Pogosian (1)** Dark energy and modified gravity	**Ferreira (2)** Dark matter models
3:30pm - 3:50pm	Coffee Break	Coffee Break		Coffee Break	Coffee Break
3:50pm - 4:30pm	**Garrison (1)** Let's Write an HOD Code!	**Garrison (2)** Let's Write an HOD Code!		**Ishida (2)** Human in the loop: active learning for astronomy	**Gluscevic (2)** Cosmological probes of dark matter
4:30am - 4:40am	Short Break	Short Break		Short Break	Short Break
4:40pm - 5:20pm	**Garrison (1)** Let's Write an HOD Code!	**Garrison (2)** Let's Write an HOD Code!		**Ishida (2)** Human in the loop: active learning for astronomy	**Gluscevic (2)** Cosmological probes of dark matter