

2016 National Nuclear Physics Summer School held at MIT

William Detmold, MIT for the organisers

The 2016 National Nuclear Physics Summer School was held at MIT from July 18th through July 29th, 2016. The organisation was overseen by a committee comprising William Detmold (chair), Joe Formaggio, Richard Milner, Gunther Roland and Mike Williams, all members of the MIT physics faculty in the Laboratory for Nuclear Science (LNS). LNS provided extensive administrative support with Elsy Luc in particular expending considerable effort on the organization and running of this school, representing an important in kind contribution from MIT to the school. The financial administration was taken care of in the Department of Physics. Posters and a website were made and the posters were distributed widely.

1. Lecturers and Topics

Lecturers and their topics are listed in Table I. The schedule is shown at the end of the document. Lecturers were selected by the committee as a whole and in most cases the first lecturer in a topic was able to participate. There were 16 lecturers of which 5 were female. All but one lecturer was US based

Table I: lecturers

Lecturer	Institution	Topic	Number
Andrew Steiner	Tennessee	Nuclear Astrophysics	4
Sinead Ryan	Trinity College Dublin	Lattice QCD	4
Abhay Deshpande	Stony Brook	Electron-Ion Collider Physics	2
Mike Williams	MIT	Data Analysis	1
Vncenzo Cirigliano	Los Alamos	Fundamental Symmetries	3
Jianwei Qiu	Brookhaven	Hadron Structure	3
Elke-Caroline Aschenauer	Brookhaven	Accelerators and Detectors	2
Daniel Winklehner	MIT	Cyclotrons	1
Stefano Gandolfi	Los Alamos	Nuclear Structure	4
Matthew Shepherd	Indiana	Hadronic Spectroscopy	3
Wilke van der Schee	MIT	Hot QCD 1	2
Jamie Nagle	Colorado	Hot QCD 2	3
Cecilia Lunardini	Arizona State	Neutrino THeory	3
Lindley Winslow	MIT	Double Beta Decay	2
Joe Formaggio	MIT	Neutrino Experiment 1	1

Lecturer	Institution	Topic	Number
Janet Conrad	MIT	Neutrino Experiment 2	1

2. Students

Students are listed in Table II. We received around 60 applications for the school and were able to accept 52. All but one of the accepted students attended, with one unable to get a visa to enter the US.

Table II: students

Last Name	First Name	Current Organization
Abrams	Daniel	University of Virginia
An	Xin	University of Illinois at Chicago
Ashtari Esfahani	Ali	University of Washington
Barbieri	Richard	Massachusetts Institute of Technology
Bi	Ran	Massachusetts Institute of Technology
Brewer	Jasmine	Massachusetts Institute of Technology
Buuck	Micah	University of Washington - CENPA
Cai	Yiming	University of Maryland, College Park
Cao	Frank	University of Connecticut
Commeford	Kelley	Drexel University
Cushman	Jeremy	Yale University
Deshmukh	Amol	The City College of New York
Dongwi	Dongwi	Hampton University
Drobizhev	Alexey	University of California Berkeley; Lawrence Berkeley National Laboratory
Duran	Burcu	Temple University
Fallica	Jake	Carnegie Mellon
Hanlon	Andrew	University of Pittsburgh
Hardin	John	Massachusetts Institute of Technology
Hauksson	Sigtryggur	McGill University
Ice	Lauren	Arizona State University
Jackura	Andrew	Indiana University

Last Name	First Name	Current Organization
Karpie	Joseph	College of William and Mary
Koglin	Johnathon	Penn State University
Lamm	Henry	Arizona State University
Li	Meijian	Iowa State University
Li	Shiyong	University of Illinois at Chicago
Li	Xiaqing	Duke University
McDonald	Scott	McGill University
Mulligan	James	Yale University
Norcini	Danielle	Yale University
Palatchi	Caryn	University of Virginia
Park	Chanwook	McGill University
Puri	Akshat	University of Illinois at Urbana-Champaign
Rahman	Sakib	University of Manitoba
Riser	David	University of Connecticut
Saldana	Luis	Yale University
Schmidt	Benjamin	Lawrence Berkeley National Laboratory
Schwartz	Peter	University of Tennessee, Knoxville
Seng	Chien Yeah	University of Massachusetts Amherst
Singh	Jagjit	University of Padova and INFN Padova
Singh	Mayank	McGill University
Skerbiš	Urša	Jozef Stefan Institute
Ta-Wei	Wang	Massachusetts Institute of Technology
Velicanu	Dragos	Massachusetts Institute of Technology
Wagaarachchi	Sachintha	UC Berkeley
Wagman	Michael	University of Washington
Wang	Jing	MIT
Welliver	Bradford	Lawrence Berkeley National Lab
Xiong	Zewei	University of Minnesota, Twin Cities
Yan	Xinshuai	University of Kentucky
Yao	Xiaojun	Duke University
Zhao	Yong	University of Maryland, College Park

3. Demographics of Students

The student body consisted of 45 male (85%) and 7 female (15%) participants, for a total of 52 registered participants (a number of other local students and postdocs attended some lectures). Seven of them were local MIT students. Students came from Canada, India, Slovenia and the US and were dominantly graduate students (two postdocs participated officially). Significant effort went into ensuring a broad set of research interests within nuclear physics in the student body.

4. Format of School

The school consisted of four 90-minute lecture periods per day. Each period was run by a single lecturer and most took a 5 to 10-minute break in the middle. There were two coffee breaks and a catered lunch break in between the four sessions on a day. Lunch and coffee were catered very close to the lecture hall.

At the end of the day, there was a general question/discussion session at which all the days' lecturers and organisers were present. This was utilised well by the students. On the first Friday, a very successful poster session was held, with about 25 students displaying posters on their thesis work.

The students were housed in dormitories at Northeastern University and provided with subway/bus passes for the duration. Unfortunately MIT did not have dorms available for any external programs over summer due to renovation projects. The dorms provided a congenial atmosphere for the students for further discussions.

5. Social Events

The School began with a welcome reception held in the Sandberg Conference Centre at MIT. This was well attended by the students, lecturers and various MIT faculty. There was also a pizza evening and some of the local students arranged weekend activities for interested visiting students.

6. Financial support from host and other organisations

7. Observations, Comments, Suggestions

Having a central mailing list for advertising the conference that is maintained by INT would be very helpful.