

DESI: A Successful University - National Laboratory Partnership

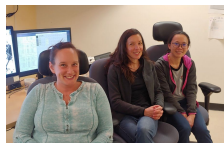
Klaus Honscheid, Paul Martini (Ohio State University)

University of Michigan EPFL (Swiss)



IFAE, ICE, CIEMAT, IFT (Spanish)

Boston University



The Ohio State University

UC Irvine

University of Arizona

UC Berkeley

CEA Saclay, CPPM, LAM, OHP, LPNHE (French)

LBNL

Focal Plane Assembly with
5000 Fiber Positioners

Top Ring, Vanes,
and Cage

Ten Thermally-Controlled,
3-Channel Spectrographs
360-980 nm

LPNHE (French)
Calibration Lamp
System

Fermilab
Six-lens, 8 sq. deg,
Wide-Field Corrector
on a Hexapod

University College London

Ten, 50-m long
Fiber Cables

Durham University

Fiber View
Camera

Yale University

UC Santa Cruz

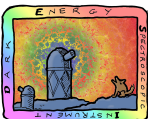
NOIRLab



DESI Institutional Contributions

Institution	Responsibilities
LBNL	Project Management; Project Office; Design; Lead for Focal Plane, Fiber System, Spectrographs, and Data Systems; NERSC; NIR Detectors and Electronics; Positioner R&D
University of Arizona	Blue Detectors
UC Berkeley	Optical design; Spectrograph Acquisition; Dichroics; VPH gratings; Corrector Lens Acquisition
Boston University	Petal Fabrication and Metrology
CEA Saclay	Cryostats
Durham University	Fiber System
EPFL	Positioner Components
Fermilab	Corrector Support System and Hexapod; Telemetry Database; PlateMaker, Detectors
IFAE, ICE, CIEMAT, IFT	Guide/Focus/Alignment Arrays
LPNHE	Calibration System, Spectrograph Testing
University of Michigan	Positioners Assembly and Testing; Petal Electronics
NOIRLab	Installation; Mayall Upgrades; Facility Operations; Data Transfer and Backup
Ohio State University	Instrument Control System; Commissioning Instrument; Spectrograph Mechanisms; Rack and Shack; Sky Monitor
CPPM, LAM, OHP	Spectrograph Testing
UC Irvine	Dynamic Exposure Time Calculator; Sky Monitor
UC Santa Cruz	Lead for Commissioning
University College London	Corrector
Yale University	Fiber View Camera; Fiducials; Focal Plane Imaging

NOTE—Contributions to instrumentation by institution through CD-4. For each institution listed in Column (1), their contribution(s) are listed in Column (2). Acronyms are: LBNL: Lawrence Berkeley National Laboratory; CEA Saclay: Commissariat à l'Énergie atomique et Saclay; EPFL: École polytechnique fédérale de Lausanne; Fermilab: Fermi National Accelerator Laboratory; IFAE: Institut de Física d'Altes Energies; ICE: Institut de Ciències de l'Espai; CIEMAT: Centro de Investigaciones Energéticas, Medioambientales y Tecnológicas; IFT: Instituto de Física Teórica; LPNHE: Laboratoire de Physique Nucléaire et de Hautes Energies; NOIRLab: NSF's National Optical-Infrared Astronomy Research Laboratory; CPPM: Centre de Physique des Particules de Marseille; LAM: Laboratoire d'Astrophysique de Marseille; OHP: Observatoire de Haute-Provence (now the Observatoire des Sciences de l'Univers Institut Pythéas).



Dark Energy Spectroscopic Instrument

U.S. Department of Energy Office of Science

Lawrence Berkeley National Laboratory

P5 Town Hall - 2023 February 23

DESI Collaboration (2022), AJ, 164, 207