

## Princeton University

James S. McDonnell Hall of Physics  
Princeton, New Jersey



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Designed as an undergraduate teaching facility, this 42,000 square-foot physics building links the Physics Department's graduate research facility with the Mathematics Department, creating a courtyard plaza that recalls the traditional quad-range layout of the older areas of campus.

Three major programmatic divisions—lecture halls, classrooms and labs—are articulated by both their massing and materials as discrete segments. Located partially underground, two lecture halls form a base for a pair of "objects:" a cast stone element consisting of five classrooms and service areas faces the plaza; a zinc-clad element (rotated to resolve the varying geometries of adjoining buildings) contains five labs and a lab prep room and provides frontal orientation toward the main circulation path. The public circulation acts as a wrapper unifying the three "objects."

A canopy marks the entrance to a double-height atrium, which connects the new building to Jadwin Hall and provides access to five classrooms, two labs and a prep room. The barrel-vaulted ceilings of three additional labs allow tall experimental set-ups involving gravity and motion studies. An exterior stair leads down to a second entrance, where the original gallery was refurbished to create lobby space for two new lecture halls. The halls are steeply raked and provided with rear projection facilities, catwalks, and turntable stages, which allow large-scale experiments to be set up in the prep room behind the stage and then rotated into the lecture halls. All three buildings are linked, allowing multiple access to the lecture halls

1 Detail, view from southwest

2 Entrance from college walk



View from northeast



View from southwest

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*Turntable stage*



*Laboratory classroom*



*Lecture hall with rear projection facilities and turntable stage*

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### Key Project Information

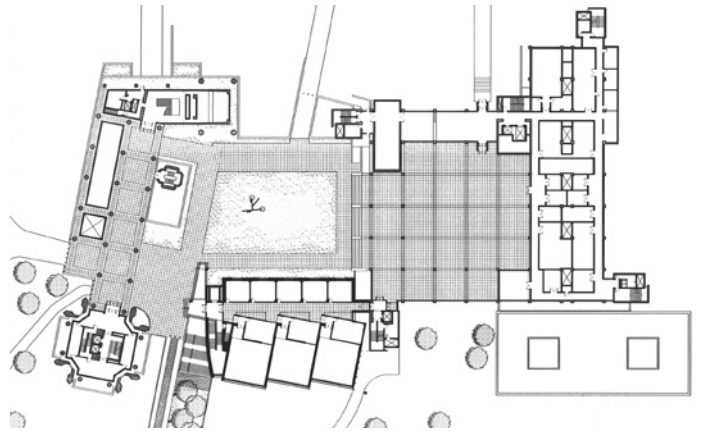
- Five classrooms
  - Three lab classrooms
  - Three teaching labs with barrel-vaulted ceilings allowing experiments involving height.
  - Prep rooms
  - Two steeply raked lecture halls with rear projection facilities, catwalks, and turntable stages, which allow large-scale experiments to be set up in the prep room behind the stage and then rotated into the lecture halls
  - Rear screen projection facilities
  - Connections to Fine and Jadwin Halls
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- completion 1998
  - gsf 43,000

“McDonnell Hall, with its refreshing palette of materials, encloses the plaza and provides a physical link between Jadwin and Fine Halls. It solves problems of scale, linkage and circulation on a difficult site in the university’s science complex.”

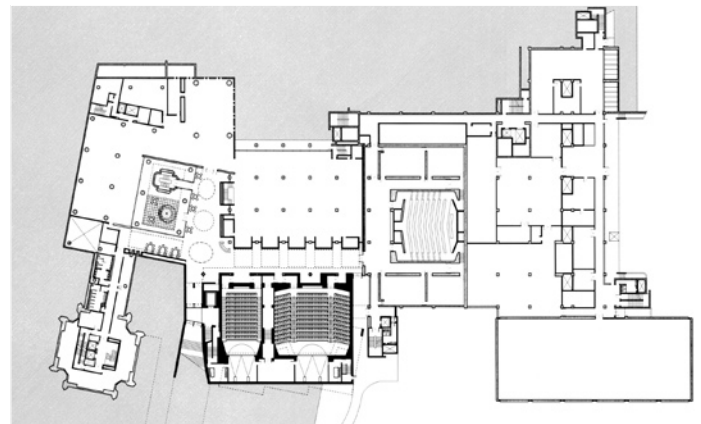
Architectural Record, October 1998



View of interior stair



Ground level plan



Lower level plan