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## Searching for Exotic Signals with the NOvA Experiment

Two highly segmented NOvA scintillation detectors, separated by 810 km and located in the path of the NuMI neutrino beam produced at Fermilab, are optimized to study the neutrino oscillation phenomenon. At the same time, the larger Far detector (FD) with its 4,000 m<sup>2</sup> surface area is capable to search for the exotic low-mass magnetic monopoles, and to monitor flux of the specific high-multiplicity cosmic ray showers, while the smaller Near detector (ND) located 100m underground at Fermilab, is capable to search for the possible presence of the elusive Dark Matter particles in the high-intensity NuMI neutrino beam, and to study the mysterious seasonal variations of multi-muon cosmic flux component. Both ND and FD NOvA detectors serve in combination as a powerful supernova detector, and allow for multi-messenger signal searches in coincidence with LIGO/Virgo gravitational wave events. The survey of the most recent NOvA results on these exciting topics will be presented.

### Collaboration / Activity

NOvA Collaboration

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