

Certification and Accreditation Documentation
for
Lattice QCD Research Program Extension III

Unique Project (Investment) Identifier: 019-20-01-21-02-1032-00

Operated at
Brookhaven National Laboratory
Fermi National Accelerator Laboratory

for the
U.S. Department of Energy
Office of Science and High Energy

Version 1

March 27, 2023

PREPARED BY:
Josephine Fazio, FNAL

CONCURRENCE:

Josephine Fazio
Josephine Fazio
LQCD Contractor Project Manager

Date: 03/27/2023

**LQCD-ext III Certification and Accreditation Documentation
Change Log**

Version No.	Description / Pages Affected	Effective Date
0.0	Updated to reflect LQCD-ext III operations model.	June 18, 2019
0.1	Updated to reflect updated ATO for FNAL & BNL	March 27, 2023

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1. SCOPE AND PURPOSE

This document contains Certification and Accreditation (C&A) documentation for the Lattice QCD Research Program Extension III Research Program (hereafter LQCD).

Computing systems used for LQCD operations at Brookhaven National Laboratory (BNL) and Fermi National Accelerator Laboratory (FNAL) are managed as parts of the enclaves maintained at each of the Laboratories and are governed by the corresponding rules of the Laboratories.

As of this date, C&A status at sites are given below:

- BNL: BNL is operating under a Computer Security Authority to Operate (ATO) document issued by the U.S. Department of Energy. A copy of BNL's DOE ATO cover letter is included in a later section.
- FNAL: FNAL is operating under a Computer Security Authority to Operate (ATO) document issued by the U.S. Department of Energy. A copy of FNAL's DOE ATO cover letter is included in a later section.

2. DOE ATO COVER PAGE for Brookhaven National Laboratory



Department of Energy
Office of Science
Brookhaven Site Office
P.O. Box 5000
Upton, New York 11973

December 9, 2022

Mr. James Fung
Information System Security Manager
Brookhaven Science Associates, LLC
Brookhaven National Laboratory
Upton, NY 11973

Dear Mr. Fung:

SUBJECT: AUTHORITY TO OPERATE (ATO) EXTENSION FOR THE UNCLASSIFIED PROGRAM

This letter is to inform Brookhaven Science Associates (BSA) that the current Authority to Operate (ATO) for the Brookhaven National Laboratory's (BNL) unclassified program will expire on December 15, 2022. The Brookhaven Site Office (BHSO) will extend the current ATO for the Information System listed below to June 15, 2023.

Information System	System Impact Level
Shared Services	Moderate
Protected Core	Moderate
Network Infrastructure	Moderate
Moderate Risk General Computing	Moderate
Low Risk General Computing	Low
Scientific Data and Computing Center	Moderate
STAR Data Acquisition	Moderate
sPHENIX	Moderate
C-AD Controls	Moderate
Photon Sciences Control	Moderate
Energy Management Control	Moderate

If you have any questions, please contact Jonathan Loh, of my staff, at 631-344-5408.

Sincerely,

ROBERT
GORDON

Digitally signed by
ROBERT GORDON
Date: 2022.12.09
10:25:56 -05'00'

Robert P. Gordon
Site Manager

cc: J. Loh, SC-BHSO
F. Healy, SC-HQ
I. Ballantyne, BSA

3. DOE ATO COVER PAGE for Fermi National Accelerator Laboratory



Department of Energy
Office of Science
Fermi Site Office
Post Office Box 2000
Batavia, Illinois 60510

November 15, 2022

Matthew Kwiatkowski
Chief Information Security Officer
Fermilab
P.O. Box 500
Batavia, Illinois 60510

**SUBJECT: AUTHORITY TO OPERATE FOR THE FERMILAB
INFORMATION TECHNOLOGY INFRASTRUCTURE**

Reference: Letter, M. Kwiatkowski to R. Snyder, dated October 27, 2022

Dear Mr. Kwiatkowski,

Fermi Research Alliance, LLC (FRA) has submitted an updated Authority to Operate (ATO) for the Fermilab Federal Information Security Management Act (FISMA) Systems listed below:

- Two General Support Systems categorized as FIPS-199 Low Impact
 - o The Campus Computing Enclave (CCE)
 - o The Collaborative Science Enclave (CSE)
- Two Major Applications (MA) categorized as FIPS-199 Moderate Impact
 - o The Information Services MA (IS MA)
 - o The Security Management Infrastructure MA (SMI MA)

The Laboratory has demonstrated that the IT Infrastructure is operating at an acceptable level of risk through the continuous monitoring, the ATO submission, and at least monthly meetings with the Site Office. I am, as the Authorizing Official, renewing the Authority to Operate for the CCE, CSE, IS MA, and SMI MA.

This ATO will remain in effect as long as the Laboratory carries out continuous monitoring under the Risk Management Framework and there are no significant changes to Fermilab's IT Infrastructure. The Laboratory should retain a copy of this letter with the security authorization package.

If you have any questions, please contact Michael Wisniewski, of my staff, at 630-252-8778 or by email michael.wisniewski@science.doe.gov.

ESH9a

SENT VIA ELECTRONIC MAIL

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Department of Energy
Office of Science
Fermi Site Office
Post Office Box 2000
Batavia, Illinois 60510

Sincerely,

Roger E. Snyder

Digitally signed by Roger E. Snyder
Date: 2022.11.15 12:24:48 -0500

Roger E. Snyder
Fermi Site Office Manager

Enclosures: As Stated

Cc:
W. Begner, FSO
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J. Bakken, FRA
P. Lam, FRA
J. Pudelek, FRA
J. Galvan, FRA
B. Tabor, FRA

APPENDIX A: Acronyms

ATO	Authority to Operate
C&A	Certification and Accreditation
LQCD	Lattice Quantum Chromodynamics
POAM	Plan of Action and Milestones