

Student Name Diego Barberena Student ID \*\*\*\*\*Doctoral  Degree in Physics

Thesis Title:

Many-body dynamics and quantum metrology in long range interacting arrays

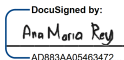
Have you performed research involving human subjects which requires approval from the Institutional Review Board (IRB)?  Yes  No

IRB Protocol Number \_\_\_\_\_

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IACUC Protocol Number \_\_\_\_\_

Attach the final copy of thesis/dissertation for committee review. While formatting changes may be requested by the Graduate School, the content of the attached document should be final.

**Approvals:**Committee Chair Name Ana Maria ReySignature  \_\_\_\_\_ Date Signed 8/1/2023Committee Member Name James ThompsonSignature  \_\_\_\_\_ Date Signed 8/1/2023

The final copy of this thesis has been examined by the signatories, and we find that both the content and the form meet acceptable presentation standards of scholarly work in the above-mentioned discipline.