

**IL PROGETTO IBiSCo E LA  
TRANSIZIONE VERSO IL  
“CENTRO NAZIONALE DI  
RICERCA IN HIGH  
PERFORMANCE  
COMPUTING, BIG DATA E  
QUANTUM COMPUTING  
(ICSC)”**



**Report of Contributions**

Contribution ID: 1

Type: **not specified**

## **C1-1 Il progetto IBiSCo**

*Thursday, 18 April 2024 10:15 (25 minutes)*

**Presenter:** CARLINO, Gianpaolo (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Sessione mattutina

Contribution ID: 2

Type: **not specified**

## **C1-2 L'upgrade delle infrastrutture del DataCenter IBiSCo - Verso il Centro Nazionale @ INFN-NAPOLI**

*Thursday, 18 April 2024 10:40 (20 minutes)*

**Presenter:** DORIA, Alessandra (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Sessione mattutina

Contribution ID: 3

Type: **not specified**

## **C1-3 Scientific Computing Facilities at LNF and INAF-OAR**

*Thursday, 18 April 2024 11:00 (15 minutes)*

**Presenter:** VILUCCHI, Elisabetta (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Sessione mattutina

Contribution ID: 4

Type: **not specified**

## **C1-4 The IBiSCo infrastructure at INFN-CT**

*Thursday, 18 April 2024 11:15 (20 minutes)*

**Presenter:** MONFORTE, Salvatore (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Sessione mattutina

Contribution ID: 5

Type: **not specified**

## **C1-5 The IBiSCo infrastructure at UNINA**

*Thursday, 18 April 2024 11:35 (15 minutes)*

**Presenter:** RUSSO, Guido (Unina)

**Session Classification:** Sessione mattutina

Contribution ID: 6

Type: **not specified**

## **C1-6 Le infrastrutture impiantistiche del Data Center IBiSCo- ReCaS-Bari dopo l'upgrade di IBiSCo**

*Thursday, 18 April 2024 11:50 (15 minutes)*

**Presenter:** DI BARI, Domenico (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Sessione mattutina

Contribution ID: 7

Type: **not specified**

## **C1-7 Le infrastrutture di calcolo, storage e rete per il Data Center IBiSCo-ReCaS-Bari dopo l'upgrade di IBiSCo**

*Thursday, 18 April 2024 12:05 (15 minutes)*

**Presenter:** DONVITO, Giacinto (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Sessione mattutina



Contribution ID: 8

Type: **not specified**

## **C1-8 Le infrastrutture realizzate presso il CNR**

*Thursday, 18 April 2024 12:20 (15 minutes)*

**Presenter:** CANTELE, Giovanni (CNR)

**Session Classification:** Sessione mattutina

Contribution ID: 9

Type: **not specified**

## **C1-9 Il Centro Nazionale ICSC**

*Thursday, 18 April 2024 12:35 (25 minutes)*

**Presenter:** GRANDI, Claudio (Istituto Nazionale di Fisica Nucleare - Sezione di Bologna)

**Session Classification:** Sessione mattutina

Contribution ID: **10**

Type: **not specified**

## Questions & Answers

*Thursday, 18 April 2024 13:00 (20 minutes)*

**Session Classification:** Sessione mattutina

Contribution ID: 11

Type: **not specified**

## **C2-1 High-performance computing in biological physics**

*Thursday, 18 April 2024 14:30 (15 minutes)*

**Presenter:** NICODEMI, Mario (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Sessione pomeridiana

Contribution ID: 12

Type: **not specified**

## **C2-2 IBiSCo usage for the Belle II experiment**

*Thursday, 18 April 2024 14:45 (15 minutes)*

**Presenter:** PARDI, Silvio (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Sessione pomeridiana

Contribution ID: 13

Type: **not specified**

## **C2-3 Progettazione, Implementazione e Validazione di una risorsa HPC eterogenea**

*Thursday, 18 April 2024 15:00 (15 minutes)*

**Presenter:** CARRACCIUOLO, Luisa (CNR)

**Session Classification:** Sessione pomeridiana

Contribution ID: 14

Type: **not specified**

## **C2-4 Quantum hybrid algorithms for combinatorial optimization problems**

*Thursday, 18 April 2024 15:15 (15 minutes)*

**Presenter:** VIZZUSO, Mara

**Session Classification:** Sessione pomeridiana

Contribution ID: 15

Type: **not specified**

## **C2-5 The HPC IBiSCo seeds for INFN experiments workflow-based cluster**

*Thursday, 18 April 2024 15:30 (15 minutes)*

**Presenter:** SPISSO, Bernardino (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Sessione pomeridiana



Contribution ID: 16

Type: **not specified**

## Questions & Answers

*Thursday, 18 April 2024 15:45 (15 minutes)*

**Session Classification:** Sessione pomeridiana

Contribution ID: 17

Type: **not specified**

## **C2-6 The User Experience in IBiSCo Data Center**

*Thursday, 18 April 2024 16:30 (15 minutes)*

**Presenter:** SABELLA, Gianluca (unina)

**Session Classification:** Sessione pomeridiana

Contribution ID: **18**

Type: **not specified**

## **C2-7 The Monitoring System in the IBiSCo Data Center**

*Thursday, 18 April 2024 16:45 (10 minutes)*

**Presenter:** TORTORA, Augusto (Università degli Studi di Napoli "Federico II")

**Session Classification:** Sessione pomeridiana

Contribution ID: 19

Type: **not specified**

## **C2-8 Cloud Infrastructure and storage for IBiSCo at Napoli**

*Thursday, 18 April 2024 16:55 (15 minutes)*

**Presenter:** DELLI VENERI, Michele (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Sessione pomeridiana

Contribution ID: 20

Type: **not specified**

## **C2-9 High-performance computing in astrophysics**

*Thursday, 18 April 2024 17:10 (10 minutes)*

**Presenter:** BRESCIA, Massimo (INAF - Osservatorio Astronomico di Capodimonte)

**Session Classification:** Sessione pomeridiana

Contribution ID: 21

Type: **not specified**

## **C2-10 Application of the IBiSCo Data Center for cultural heritage projects**

*Thursday, 18 April 2024 17:20 (10 minutes)*

**Presenter:** CONTE, Stefania (unina)

**Session Classification:** Sessione pomeridiana

Contribution ID: 22

Type: **not specified**

## Questions & Answers

*Thursday, 18 April 2024 17:30 (20 minutes)*

**Session Classification:** Sessione pomeridiana

Contribution ID: 23

Type: **not specified**

## **C3-1 Methods and algorithms for the massive processing of synthetic aperture radar interferometric satellite data**

*Friday, 19 April 2024 09:20 (10 minutes)*

**Presenters:** ZINNO, Ivana; BONANO, Manuela

**Session Classification:** Sessione mattutina



Contribution ID: 24

Type: **not specified**

## **C3-2 Computational fluid dynamics of complex multiphase systems through electrohydrodynamic effect (EHD) for microfluidic applications**

*Friday, 19 April 2024 09:30 (10 minutes)*

**Presenter:** FONTANAROSA, Giuseppe

**Session Classification:** Sessione mattutina

Contribution ID: 25

Type: **not specified**

## **C3-3 Large scale molecular dynamics simulations of biomolecular systems in membrane environment**

*Friday, 19 April 2024 09:40 (10 minutes)*

**Presenter:** VITALE, Rosa Maria

**Session Classification:** Sessione mattutina

Contribution ID: 26

Type: **not specified**

**C3-4 Development and application of parallel  
CPU/GPU tools to extend the characterization of  
direct and solvent-mediated H- bond interactions in  
large structural protein databases**

*Friday, 19 April 2024 09:50 (10 minutes)*

**Presenters:** MASSUOLI, Michele; AMODEO, Pietro

**Session Classification:** Sessione mattutina

Contribution ID: 27

Type: **not specified**

## **C3-5 Contribution of the IBiSCo-ReCaS-Bari Data Center to the Italian National Smart Specialization Strategy**

*Friday, 19 April 2024 10:00 (10 minutes)*

**Presenter:** DI BARI, Domenico

**Session Classification:** Sessione mattutina

Contribution ID: 28

Type: **not specified**

## **C3-6 The users of the IBiSCo-ReCaS-Bari data center and their support: organization and tools**

*Friday, 19 April 2024 10:10 (10 minutes)*

**Presenter:** NICOTRI, Stefano

**Session Classification:** Sessione mattutina

Contribution ID: 29

Type: **not specified**

## **C3-7 Bari Cloud site evolution: Introducing the architecture and implementation of the upgraded IaaS infrastructure**

*Friday, 19 April 2024 10:20 (10 minutes)*

**Presenter:** ITALIANO, Alessandro

**Session Classification:** Sessione mattutina

Contribution ID: 30

Type: **not specified**

## **C3-8 Delivering integrated high-level services at Bari IBiSCo-ReCaS site through the PaaS dashboard**

*Friday, 19 April 2024 10:30 (10 minutes)*

**Presenter:** PATANO, Mauro

**Session Classification:** Sessione mattutina

Contribution ID: 31

Type: **not specified**

## Questions & Answers

*Friday, 19 April 2024 10:40 (10 minutes)*

**Session Classification:** Sessione mattutina



Contribution ID: 32

Type: **not specified**

## **C3-9 GPU-based cluster at IBiSCo-ReCaS-Bari for containerized scientific applications**

*Friday, 19 April 2024 11:30 (10 minutes)*

**Presenter:** VINO, Gioacchino

**Session Classification:** Sessione mattutina

Contribution ID: 33

Type: **not specified**

## **C3-10 High-performance computing in UAV photogrammetry**

*Friday, 19 April 2024 11:40 (10 minutes)*

**Presenter:** LA SALANDRA, Marco

**Session Classification:** Sessione mattutina

Contribution ID: 34

Type: **not specified**

## **C3-11 Many-body quantum dynamics simulations with the IBiSCo resource**

*Friday, 19 April 2024 11:50 (10 minutes)*

**Presenter:** RUSSOMANNO, Angelo

**Session Classification:** Sessione mattutina

Contribution ID: 35

Type: **not specified**

## **C3-12 Unlocking AI Capabilities: Advanced Applications through High-Performance Computing**

*Friday, 19 April 2024 12:00 (10 minutes)*

**Presenter:** IZZO, Stefano (unina)

**Session Classification:** Sessione mattutina

Contribution ID: 36

Type: **not specified**

## **C3-13 Open Access repositories for scientific literature and research data**

*Friday, 19 April 2024 12:10 (10 minutes)*

**Presenter:** PIERGENTILI, Irene

**Session Classification:** Sessione mattutina

Contribution ID: 37

Type: **not specified**

## Questions & Answers

*Friday, 19 April 2024 12:20 (20 minutes)*

**Session Classification:** Sessione mattutina

Contribution ID: 38

Type: **not specified**

## **C3-14 Setting up an automated framework for bioinformatic and multiomic analyses on IBiSCo**

*Friday, 19 April 2024 13:40 (15 minutes)*

**Presenter:** MUTARELLI, Margherita

**Session Classification:** Sessione pomeridiana

Contribution ID: 39

Type: **not specified**

## **C3-15 Development of a state of the art computational environment for handling human genetic data: the effort of ELIXIR-IT**

*Friday, 19 April 2024 13:55 (15 minutes)*

**Presenter:** LO GIUDICE, Claudio

**Session Classification:** Sessione pomeridiana



Contribution ID: 40

Type: **not specified**

## **C3-16 Material science problems on IBiSCo**

*Friday, 19 April 2024 14:10 (15 minutes)*

**Presenter:** BARRECA, Valentina

**Session Classification:** Sessione pomeridiana

Contribution ID: 41

Type: **not specified**

## **C3-17 Towards machine learning-based PDE identification for crowd dynamics**

*Friday, 19 April 2024 14:25 (15 minutes)*

**Presenter:** VIOLA, Gianmaria

**Session Classification:** Sessione pomeridiana

Contribution ID: 42

Type: **not specified**

## Conclusioni

*Friday, 19 April 2024 14:40 (20 minutes)*

**Presenter:** CARLINO, Gianpaolo (Istituto Nazionale di Fisica Nucleare)

**Session Classification:** Sessione pomeridiana