

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

AGENDA 18 APRILE 2024

Complesso Universitario di Monte S. Angelo, Aula Caianiello

09:30–10:00 WELCOME COFFEE e REGISTRAZIONE

10:00–10:15 C1-0 Saluti istituzionali (proff. G.Miele, L. Lista, F. Miletto Granozio)

Chairperson: Giorgio Pietro Maggi

10:15–10:40 C1-1 *Carlino*, Il progetto IBiSCo

10:40–11:00 C1-2 *Doria et al.*, L'upgrade delle infrastrutture del DataCenter IBiSCo verso ICSC a INFN-NAPOLI

11:00–11:15 C1-3 *Vilucchi et al.*, Scientific Computing Facilities at LNF and INAF-OAR

11:15–11:35 C1-4 *Monforte et al.*, The IBiSCo infrastructure at INFN-CT

11:35–11:50 C1-5 *Russo et al.*, The IBiSCo infrastructure at UNINA

11:50–12:05 C1-6 *di Bari et al.*, Le infrastrutture impiantistiche del Data Center IBiSCo-ReCaS-Bari dopo l'upgrade di IBiSCo

12:05–12:20 C1-7 *Donvito et al.*, Le infrastrutture di calcolo, storage e rete per il Data Center IBiSCo-ReCaS-Bari dopo l'upgrade di IBiSCo

12:20–12:35 C1-8 *Cantele et al.*, Le infrastrutture realizzate presso il CNR

12:35–13:00 C1-9 *Grandi*, Il Centro Nazionale ICSC

13:00–13:20 Questions & Answers

13:20–14:30 **PAUSA PRANZO** (buffet)

Chairperson: Alessandra Doria

14:30–14:45 C2-1 *Nicodemi et al.*, High-performance computing in biological physics

14:45–15:00 C2-2 *Pardi et al.*, IBiSCo usage for the Belle II experiment

15:00–15:15 C2-3 *Carracciuolo et al.*, Progettazione, Implementazione e Validazione di una risorsa HPC eterogenea

15:15–15:30 C2-4 *Vizzuso*, Quantum hybrid algorithms for combinatorial optimization problems

15:30–15:45 C2-5 *Spisso et al.*, The IBiSCo HPC seed for INFN experiments workflow-based cluster

15:45–16:00 Questions & Answers

16:00–16:30 **COFFEE BREAK**

Chairperson: Giovanni Cantele

16:30–16:45 C2-6 *Sabella et al.*, The User Experience in IBiSCo Data Center

16:45–16:55 C2-7 *Tortora et al.*, The Monitoring System in the IBiSCo Data Center

16:55–17:10 C2-8 *Delli Veneri et al.*, Cloud Infrastructure and storage for IBiSCo and ICSC at Naples

17:10–17:20 C2-9 *Brescia et al.*, High-performance computing in astrophysics

17:20–17:30 C2-10 *Conte et al.*, Application of the IBiSCo Data Center for cultural heritage projects

17:30–17:50 Questions & Answers

20:00–23:00 **CENA SOCIALE**



UNIONE EUROPEA
Fondo Sociale Europeo
Fondo Europeo di Sviluppo Regionale



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AGENDA 19 Aprile 2024

Chairperson: Silvio Pardi

09:20–09:30 C3-1 *Bonano et al.*, Methods and algorithms for the massive processing of synthetic aperture radar interferometric satellite data

09:30–09:40 C3-2 *Fontanarosa et al.*, Computational fluid dynamics of complex multiphase systems through electrohydrodynamic effect (EHD) for microfluidic applications

09:40–09:50 C3-3 *Vitale et al.*, Large scale molecular dynamics simulations of biomolecular systems in membrane environment

09:50–10:00 C3-4 *Massuoli et al.*, 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

10:00–10:10 C3-5 *di Bari et al.*, Contribution of the IBiSCo-ReCaS-Bari Data Center to the Italian National Smart Specialization Strategy

10:10–10:20 C3-6 *Nicotri et al.*, The users of the IBiSCo-ReCaS-Bari data center and their support: organization and tools

10:20–10:30 C3-7 *Italiano et al.*, IBiSCo-ReCaS-Bari Cloud site evolution: Introducing the architecture and implementation of the upgraded IaaS infrastructure

10:30–10:40 C3-8 *Patano et al.*, Delivering integrated high-level services at Bari IBiSCo-ReCaS site through the PaaS dashboard

10:40–11:00 Questions & Answers

11:00–11:30 COFFEE BREAK

Chairperson: Melania Paturzo

11:30–11:40 C3-9 *Vino et al.*, GPU-based cluster at IBiSCo-ReCaS-Bari for containerized scientific applications

11:40–11:50 C3-10 *La Salandra et al.*, High-performance computing in UAV photogrammetry

11:50–12:00 C3-11 *A. Russomanno*, Many-body quantum dynamics simulations with the IBiSCo resource

12:00–12:10 C3-12 *Izzo et al.*, Unlocking AI Capabilities: Advanced Applications through High-Performance Computing

12:10–12:20 C3-13 *Piergentili et al.*, Open Access repositories for scientific literature and research data

12:20–12:40 Questions & Answers

12:40–13:40 PAUSA PRANZO (buffet)

Chairperson: Giacinto Donvito

13:40–13:55 C3-14 *L. Di Filippo & M. Mutarelli*, Setting up an automated framework for bioinformatic and multiomic analyses on IBiSCo

13:55–14:10 C3-15 *Lo Giudice et al.*, Development of a state of the art computational environment for handling human genetic data: the effort of ELIXIR-IT

14:10–14:25 C3-16 *Barreca et al.*, Material science problems on IBiSCo

14:25–14:40 C3-17 *Viola et al.*, Towards machine learning-based PDE identification for crowd dynamics

14:40–15:00 Conclusioni (*Carlino*)