



3rd JPEG DNA Workshop

9th April 2021

17:00-17:05 UTC- Welcome & Introduction

Touradj Ebrahimi and Fernando Pereira

17:05-17:25 UTC- Audiovisual digital preservation and DNA storage requirements

Linda Tadic (Digital Bedrock and UCLA Department of Information Studies)

17:25-17:45 UTC- Low cost DNA data storage with noisy synthesis and advanced error correction

Reinhard Heckel (Technical University of Munich and Rice University)

17:45-18:05 UTC- Coding for efficient DNA data storage

Sergey Yekhanin (Microsoft Research)

18:05-18:30 - Questions & Discussion



Welcome and Introduction

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9th April 2021

Touradj Ebrahimi, Fernando Pereira



1st JPEG DNA Workshop

30 September 2020

4:00pm UTC - Introduction,

Touradj Ebrahimi

4:05pm UTC - DNA-based Media Storage: Exploring New Frontiers,

Fernando Pereira

4:25pm UTC - Image coding for long-term storage on synthetic DNA,

Marc Antonini

4:55pm UTC - Microform and Macromolecules: Issues in archiving digital data on analog or biological storage media,

Raja Appuswamy

5:15pm UTC - Wrap up session

5:30pm UTC - End



2nd JPEG DNA Workshop

8 January 2021

8:00 UTC - Introduction,

Touradj Ebrahimi and Fernando Pereira

8:05 UTC - An overview of DNA Data storage alliance,

Daniel Chadash (Twist Bioscience)

8:25 UTC - OligoArchive - Using Synthetic DNA to Store and Process Data,

Thomas Heinis (Imperial College)

8:45 UTC - Montreux Jazz Digital Project, from a heritage to an innovation platform,

Alain Dufaux (EPFL)

9:05 UTC - Wrap up session

9:30 UTC - End



Objectives

- Involvement of **stakeholders** to better **understand applications and scenarios** relevant to **data storage on DNA use cases**.
- **Identification of key requirements** for a standard in DNA visual data storage.
- Ensuring **interoperability** between a wide range of applications dealing with data storage on DNA
- **Identification** of areas where **JPEG** can help in defining **specifications** endorsed and **adopted internationally**



Standardization Roadmap

Inform and engage
stakeholders

Collect relevant use
cases

Assess and organize
use cases

Define and cluster
requirements from
use cases

Define appropriate
performance
assessment processes
and metrics



**Issue a Call for
Proposals**



Next Steps

- Continue collecting JPEG DNA **use cases and requirements**.
- Survey on relevant **industry and government initiatives**.
- **Engage with stakeholders** and attract them to contribute.
- Organization of **workshops**



How can you contribute?

- **Spread the word** and encourage participation.
- **Identify use cases** with text descriptions.
- **Identify requirements** with text descriptions.



Questions

- **Contacts**

- Fernando Pereira, fp@lx.it.pt (JPEG DNA AHG chair and JPEG Requirements SG Chair)
- Touradj Ebrahimi, Touradj.Ebrahimi@epfl.ch (JPEG DNA AHG chair and JPEG Convenor)

- **Email reflector:** jpeg-dna@jpeglists.org

- Subscribe via <http://listregistration.jpeg.org>

- **More information and documentation**

- <https://jpeg.org/jpegdna>



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