## Vitto Vitale

## **Key Topics:**

- Centralized data centers (e.g. Pangaea, NORMAP, Arctic Data Centre):
- Revolution of brokering services: these services collate all of the dates and make it available for others.
- Barriers for development are high costs for hardware, system fragmentation, distance from researches, high vulnerability to single failures.
- Continuing challenges include the standard of the data, securing the data flow its quality and documentation.
- Cooperation is key.

## Main Developments:

- Considering the data life cycle and how to integrate different end-users together.
- FAIR guiding principles
- Persistent Identifiers (i.e. Digital Object Identifiers (DOI)).

## **Open Questions/Future Directions:**

- Connecting with other stakeholders/users (i.e. getting the general public interested in using/exploring data)
- Researchers should try to recognize that sharing and making good-quality available data is of benefit to them (and the community + society) in the long term, rather than a time sink.
- Need for new competencies: Data Scientists an interdisciplinary field of scientific methods
- Considering the role of data depositories, important to maintain, make consistent, and make them free.
- Enlarge our vision to connect data to non-scientific users.