Plan Overview

A Data Management Plan created using DMPTuuli

Title: Manipulating industrial nanofoams

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Template: Academy of Finland DMP

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Project abstract:

The research is theoretical and experimental soft matter research. The goal is to study the yielding of matter using foams as templates. The data is obtained from experiments and rheometry as ascii (csv) data files, and videos from 2D experiments of foam moving in a quasi 2D measuring shell. Also, some 3D-tomography is performed.

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Copyright information:

Manipulating industrial nanofoams

1. Collaborators (archives, storage services, etc.)

With which collaborators will the data be managed and made openly available? [Autumn 2016, please create a new DMP to get the latest template!]

The raw data from the experiments (images and ascii) and simulations (ascii and binary) will be stored to an appropriate cloud service (for instance dropbox.com). Read only links (URN) to raw data are shared by request. The data is also stored locally on hard disks and on local science-IT servers.

Later, the data is organized, processed and documented to cloud service (e.g. box.com) provided by Aalto University. Read only links to data are shared by request. The most important data sets are shared with public read only links (URN) in the project website.

The essential data sets are published in data repositories that provide a DOI. One possibility is datadryad.org, which stores and maintains DOIs for similar datasets.

During the project and before publications the ownership of the data is with the authors. After publications are made the data is made as freely distributable as possible for example under creative commons 0 license.

2. Type of data

What types of data (e.g. qualitative, quantitative, measurements) will the project collect or use? The data content is described in more detail in the research plan. [Autumn 2016, please create a new DMP to get the latest template!]

The data sets compose of machine collected time series (force, displament and image data) as well as the analysis algorithms, models and numerical results. The data sets contain headers that describe the protocol, relavant parameters, materials used and environmental details. The estimated raw data set size is a few terabytes.

3. Technical documentation

How will the data be documented? For example, what file format and metadata standard will be used? [Autumn 2016, please create a new DMP to get the latest template!]

The sensor time series data and the numerical simulations data are stored as human readable comma separated values (ascii csv). The data is then compressed with standard compression tools e.g. bz2.

Image and video data is stored as single images with loseless compression (e.g. tiff + bz2) if possible. In practise, the most likely video data format is h.264.

The data is stored in a format compatible with W3C RDF (Resource Description Framework) standard if possible. If this is not possible, each set will be stored in its own folder that contains a human readable file (README) of the folder content.

Algorithms and numerical models are stored in a software repository (git) that resides in a cloud service (dropbox.com, box.com, github, and/or Aalto vcs).

In all data storage the most common tools are preferred that are available without charge in all common platforms (windows, linux, osx, etc).

4. Ethics and legal compliance

How will ethical issues concerning data management (e.g. sensitive personal information, third-party access to data) be taken into account? How will copyright and IPR issues be managed? Please note that the ethical issues that concern data collection and research implementation are described in the research plan. [Autumn 2016, please create a new DMP to get the latest template!]

There are no ethical issues nor personal information.

All data can be publically shared read only.

CC0 or CC-BY licence is used.

5. Data sharing and long-term preservation

How will the data be made available for subsequent use by other researchers? [Autumn 2016, please create a new DMP to get the latest template!]

The organized raw data and algorithms are stored up to 5 years after the project is ended in the cloud storages and 10 years in personal backups. The data from personal backups are available upon request. Cloud services have public links in the project website that is maintained 5 years after.

The essential data sets published in data repositories that provide DOI for example datadryad.org stores and maintains DOIs for similar datasets. Essential datasets are stored as long as the datadryad project is available.