



Research Data Management – Open Science

Maurice Schleußinger - maurice.schleussinger@hhu.de

ZIM - Zentrum für Informations- und Medientechnologie

Heinrich-Heine-Universität Düsseldorf

OPEN

“Open data and content can be freely used, modified, and shared by anyone for any purpose”

The Open Definition

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Source
Software

Open Science

Open Access

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Open
Educational
Resources

Open Design

Open Research Data

Open Data

Open
Source
Software

Open Science

Open Access

OPEN

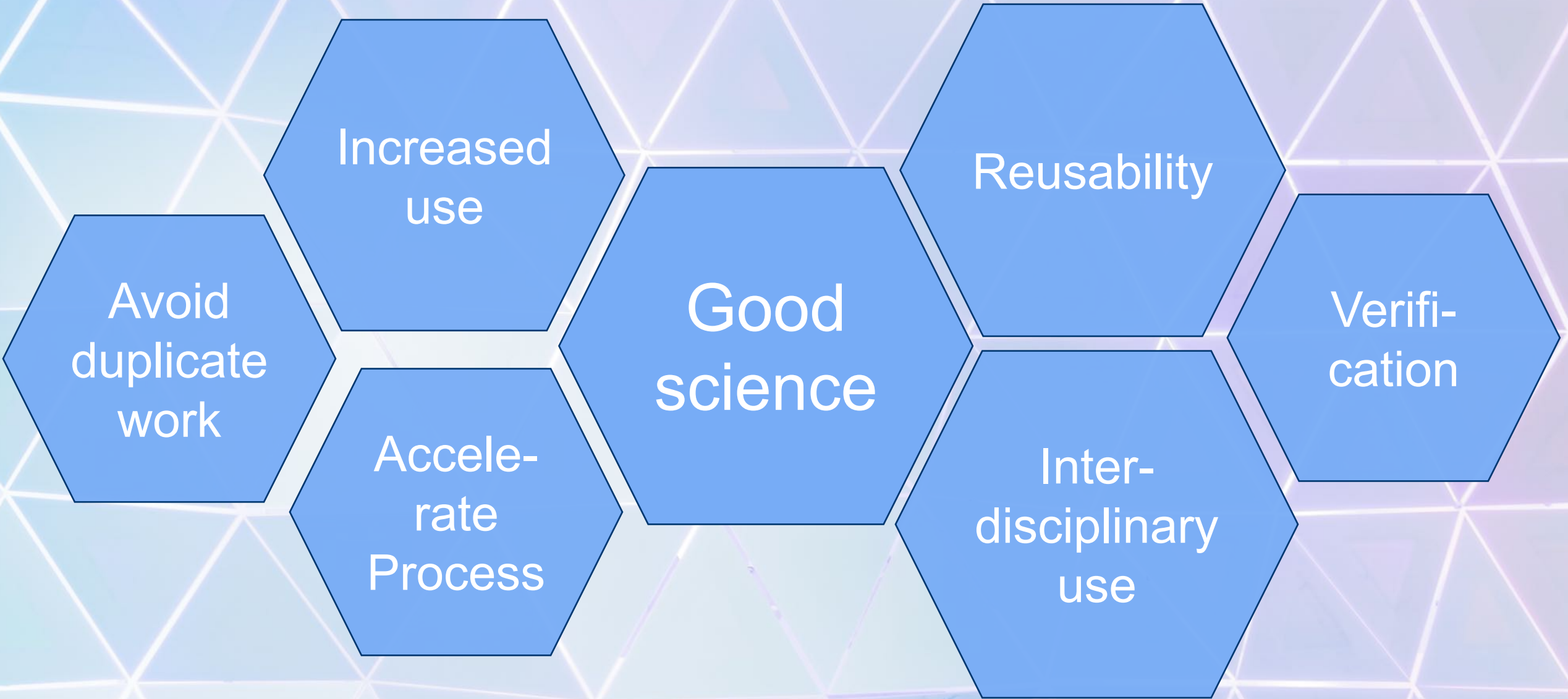
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Resources

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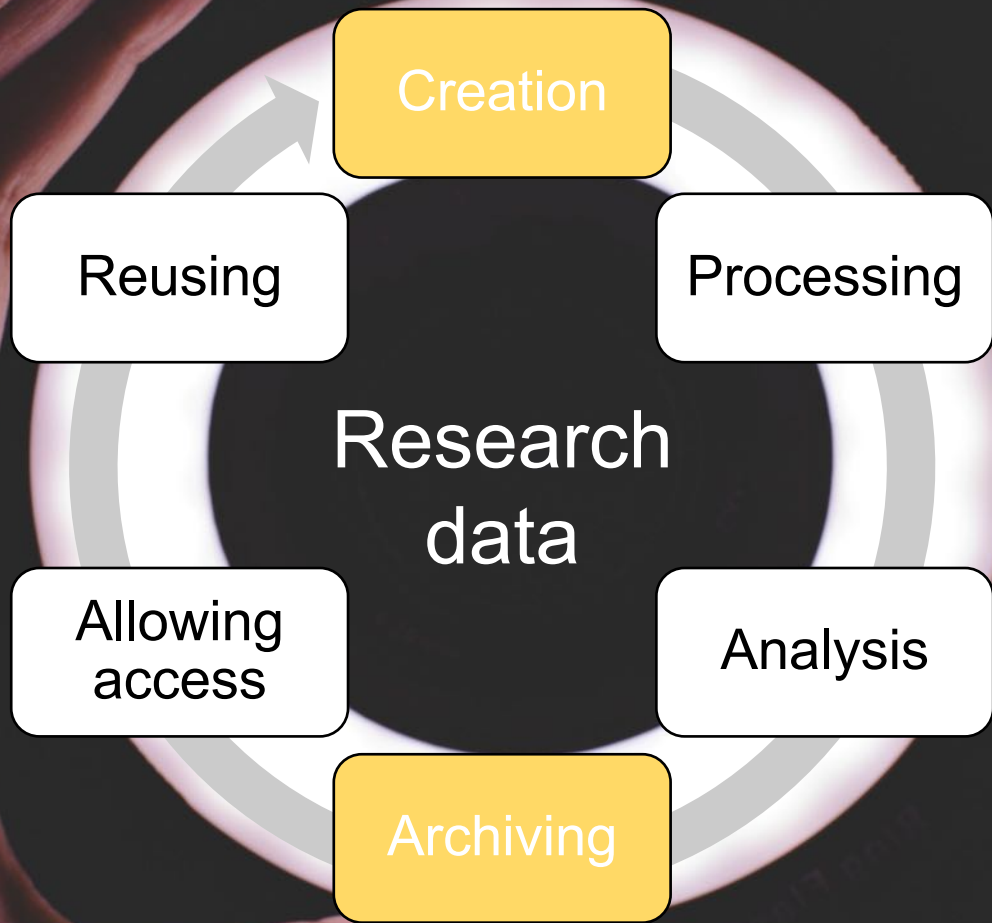
Open Research Data



Reasons for Open Research Data







Open Access Repositories

community-specific

institutional

multidisciplinary



PANGAEA.
Data Publisher for Earth & Environmental Science



zenodo

GenBank



Open Science Framework



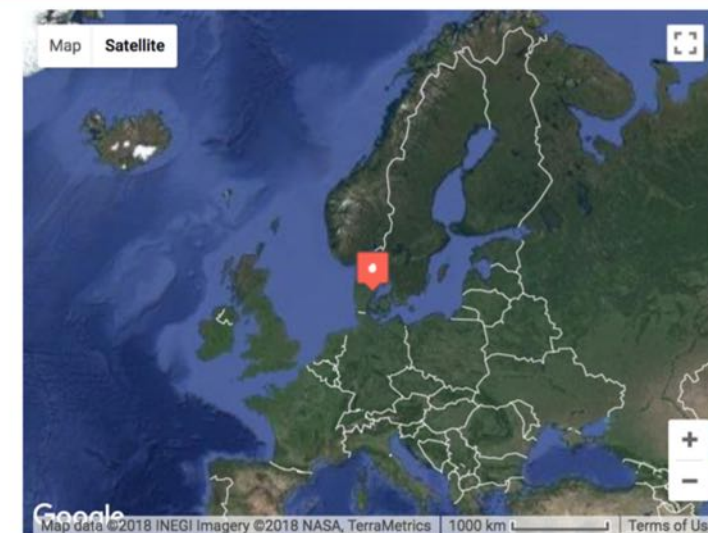
Citation:

Zhuang, Guang-Chao; Lin, Yu-Shih; Bowles, Marshall W; Heuer, Verena B; Lever, Mark A; Elvert, Marcus; Hinrichs, Kai-Uwe (2018): Distribution and isotopic composition of trimethylamine, dimethylsulfide and dimethylsulfoniopropionate in marine sediments of Aarhus Bay. *PANGAEA*, <https://doi.pangaea.de/10.1594/PANGAEA.888371> (DOI registration in progress),

Supplement to: Zhuang, G-C et al. (2017): Distribution and isotopic composition of trimethylamine, dimethylsulfide and dimethylsulfoniopropionate in marine sediments. *Marine Chemistry*, **196**, 35-46, <https://doi.org/10.1016/j.marchem.2017.07.007>

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Abstract:

Methylated amines and sulfides are ubiquitous organic nitrogen and sulfur compounds in the marine environment and could serve as important energy substrates to methanogens inhabiting anoxic sediments. However, their abundance and isotopic values remain largely unconstrained in marine sediments. In this study, we investigated the distribution of trimethylamine (TMA), dimethylsulfide (DMS) and dimethylsulfoniopropionate (DMSP) in Aarhus Bay, Denmark and provided the first report for their stable carbon isotopic composition. Simultaneous measurement of those two compounds in small volumes of pore waters and sediments was accomplished with gas chromatography in combination with either a purge and trap system for quantification or a headspace method for carbon isotopic analysis. TMA in the solid phase (exchangeable pool, 0.3-6.6 $\mu\text{mol/kg}$ wet sediment; base-extractable pool, 2-18 $\mu\text{mol/kg}$) was much more abundant than the dissolved pool (< 20 nM), indicating strong adsorption of TMA to sediments. Likewise, total base-hydrolyzable DMS(P)t (including DMS and base-released DMS from DMSP) in sediment was at least three orders of magnitude higher (11-65 $\mu\text{mol/kg}$) than the dissolved pool of DMS(P)d in the pore water (including DMS and dissolved DMSP; 1-12 nM). TMA and DMS(P) contents in the solid phase peaked in the surface sediment, consistent with their phytodetrital origin. TMA was more ^{13}C -depleted than DMS(P) (TMA: -36.4 per mil to -39.2 per mil; DMS: -18.6 per mil to -23.4 per mil), presumably due to different biological or biosynthetic origins of the respective methyl groups. Both compounds showed a downcore decrease in their solid-phase concentration, a feature that was attributed to microbial degradation, but progressive enrichment in ^{13}C (up to 4 per mil) with depth was observed only for DMS(P). The considerable pool size of TMA and DMS(P) outlined in this study and geochemical evidence of their degradability suggested these two compounds could be potentially important substrates for methane production in sulfate-reducing environments.

Coverage: Median Latitude: 56.110600 * Median Longitude: 10.402400 * South-bound Latitude: 56.103300 * West-bound Longitude: 10.346800 * North-bound Latitude: 56.117900 * East-bound Longitude: 10.458000

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Size: 2 datasets

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Download **ZIP** file containing all datasets as tab-delimited text (use the following character encoding:)

Datasets listed in this Collection

1. **Zhuang, G-C; Lin, Y-S; Bowles, MW et al. (2018):** Distribution and isotopic composition of trimethylamine, dimethylsulfide and dimethylsulfonypropionate in sediment core M1.
<https://doi.pangaea.de/10.1594/PANGAEA.888368>
2. **Zhuang, G-C; Lin, Y-S; Bowles, MW et al. (2018):** Distribution and isotopic composition of trimethylamine, dimethylsulfide and dimethylsulfonypropionate in sediment core M5.
<https://doi.pangaea.de/10.1594/PANGAEA.888370>

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Main Title: Geological 3-D model as 3-D PDF and mve files

Author(s): Ziesch, Jennifer

Type: Generic Research Data

Language: English

Abstract: The 3-D PDF shows the 3-D model, including all interpreted stratigraphic horizons and faults as triangulated surfaces. To activate the 3-D PDF, the user has to click once in the black background and wait. After a few seconds it should be possible to get a 360° view around the 3-D model and to toggle horizons/faults/wells on and off. In a standard PDF viewer it is possible to create custom 2-D sections along X, Y or Z axes through the 3-D model.

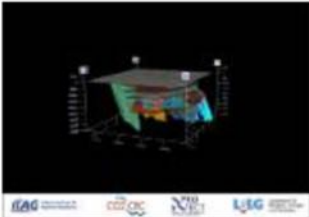
Due to technical issues it is not possible to convert a 3-D PDF into a 3-D Pdf with PDF/A standard.

The zip folder "Move_projects" contains different .mve files that were used for the retro-deformation of the geological 3-D model. Every single decompaction and restoration step was saved as extra .mve file.

Is Supplement To: [10.14279/depositonce-5386](https://doi.org/10.14279/depositonce-5386)

Appears in [FG S-Geophysikalisches Processing mit Schwerpunkt Seismik » Research Data](#)
Collections:

Files in This Item:

File	Description	Size	Format	
Geological_3-D_Model_3DPDF.pdf	3-D PDF shows the geological 3-D model of CO2CRC study area in the Otway Basin, Australia.	6.83 MB	Adobe PDF	 View/Open
Move_projects.zip	The zip folder contains different .mve-files that were used for retro-deformation of the geological 3-D model.	452 MB	ZIP Archive	View/Open

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April 23, 2018

Dataset Open Access

Reproducibility Package for "Reproducible research and GIScience: an evaluation using AGILE conference papers"

Nüst, Daniel

Researcher(s)

Granell, Carlos; Hofer, Barbara; Konkol, Markus; Ostermann, Frank O.; Sileryte, Rusne; Certutti, Valentina

Data and code for analysis and plots used in the manuscript "Reproducible research and GIScience: an evaluation using AGILE conference papers": <https://doi.org/10.7287/peerj.preprints.26561v1>

The deposited archived includes a [Dockerfile](#) and an [R Markdown](#) document suitable for use with Binder: <https://mybinder.org/v2/gh/nuest/reproducible-research-and-giscience/2>

Preview

reproducible-reserach-and-giscience.zip

.git

o HEAD	41 Bytes
o branches	
o config	289 Bytes
o description	73 Bytes
o hooks	
▪ applypatch-msg.sample	478 Bytes
▪ commit-msg.sample	896 Bytes
▪ fsmonitor-watchman.sample	3.3 kB
▪ post-update.sample	189 Bytes
▪ pre-applypatch.sample	424 Bytes
▪ pre-commit.sample	1.6 kB
▪ pre-push.sample	1.3 kB
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▪ pre-receive.sample	544 Bytes
▪ prepare-commit-msg.sample	1.5 kB
▪ update.sample	3.6 kB

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DOI:

DOI 10.5281/zenodo.1227761

Keyword(s):

GIScience

Related identifiers:

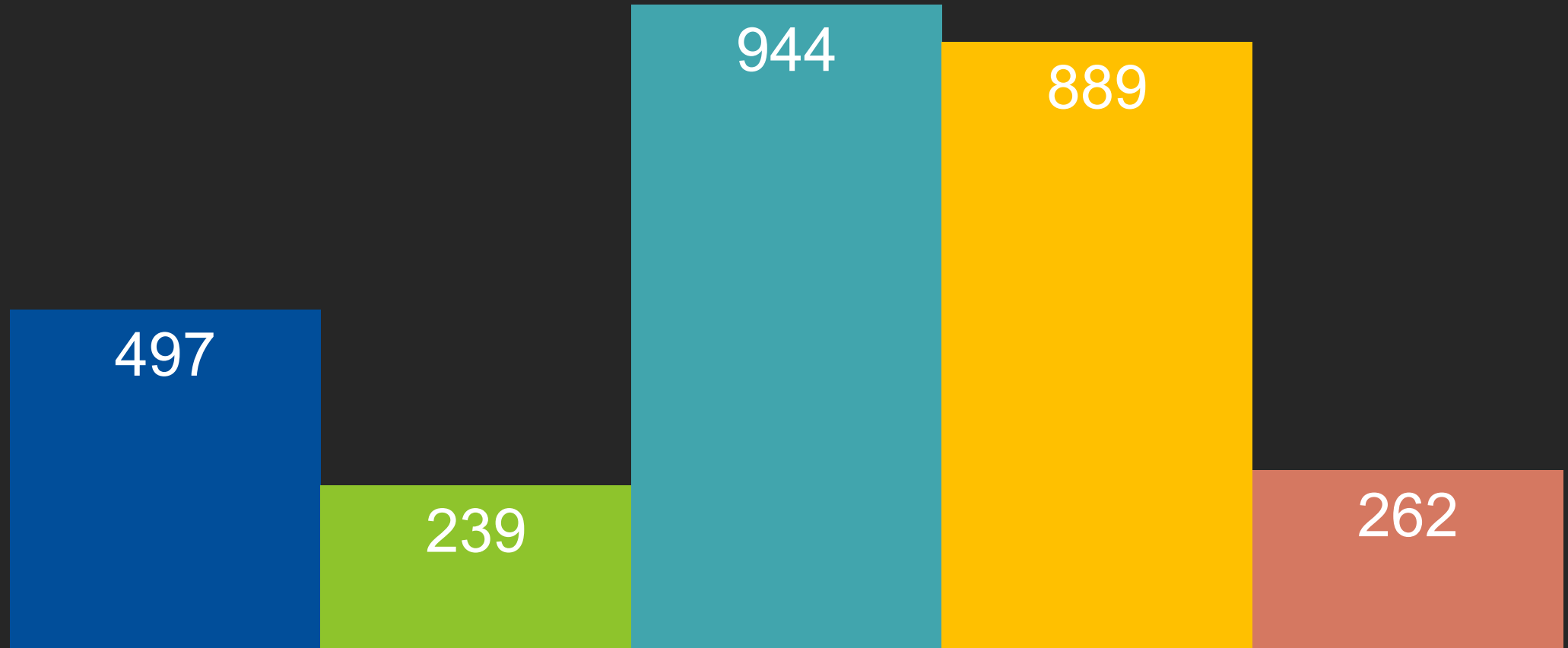
Versions

Version 2	10.5281/zenodo.1227761	Apr 23, 2018
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