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国立情報学研究所 オープンサイエンス基盤研究センター

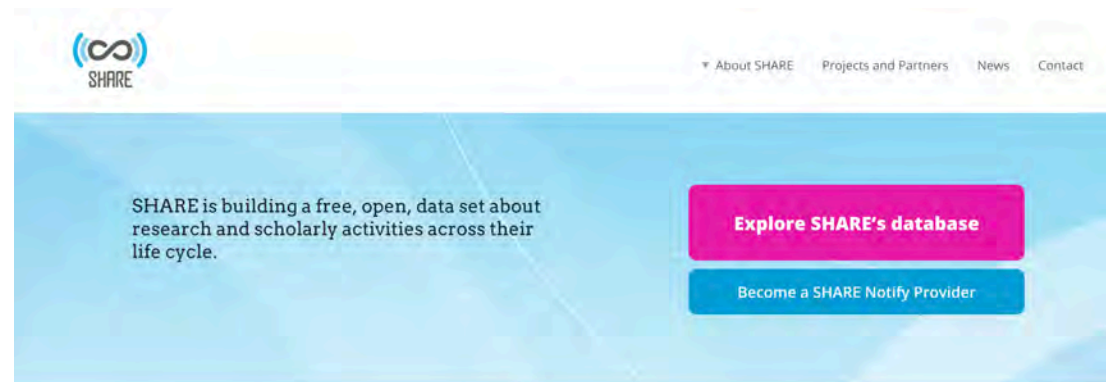
図書館総合展2017 NIIフォーラム

2017-11-07

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### Data from: Butterfly genome reveals promiscuous exchange of mimicry adaptations among species

The Heliconius Genome Consortium

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## Contributors

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## Additional Information



# Butterfly genome reveals promiscuous exchange of mimicry adaptations among species

Article

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## Contributors

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Contributors: [Erin Braswell](#), [Cynthia Hudson-Vitale](#), [Judy Ruttenberg](#), [Chris Seto](#), [Jeffrey R. Spies](#), [Rick Johnson](#)

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24 contributions

### SHARE v1 API Documentation

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43 contributions

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### Visualization scores.

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Publisher: Figshare

Visualization scores.

### Example Bam File For Galaxy Visualization Development Tutorial

IUC (2017)

Publisher: Zenodo

An example BAM file that can be used for the tutorial on visualization plugin development in Galaxy.

### MetaSee: An Interactive and Extendable Visualization Toolbox for Metagenomic Sample Analysis and Comparison

Song, Baoxing; Su, Xiaoquan; Xu, Jian; Ning, Kang (2012)

Publisher: Figshare

The NGS (next generation sequencing)-based metagenomic data analysis is becoming the mainstream for the study of microbial communities. Faced with a large amount of data in metagenomic research, effective data visualization is important for scientists to effectively explore, interpret and manipulate such rich information. The visualization of the metagenomic data, especially multi-sample data, is one of the most critical challenges. The different data sample sources, sequencing approaches and...

### Recent Advances in Endodontic Visualization: A Review

Iosr Journals; Dr. Anil Dhingra<sup>1</sup> , Dr. Nidhi Nagar (2014)

Publisher: Figshare

### Interactive 3D visualization of an astrolabe

Nagel, D.; Cocquyt, T.

Publisher: Data Archiving and Networked Services (DANS)

### Orthophoto Imaging and GIS for Seabed Visualization and Underwater Archaeology

unknown (2010)

Publisher: Universitätsbibliothek Tübingen

Embargo end date: 2015/03/24

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**Visualization scores.**

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**Publisher:** Figshare

**Type:** dataset

**Subjects:** Medicine, Cell Biology, Neuroscience, Biotechnology, Cancer, comprehensive mr urography protocol, upper urinary tract, visualization, 3.0 t-mru, intrarenal cavity areas, ctu, uut, triple-phase ct urography objectives, good diagnostic performance, wilcoxon matched-pairs test, performance, conclusions comprehensive 3.0 t-mru, nct

Identifiers: [doi:10.1371/journal.pone.0158673.t002](#)

Visualization scores.

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| <a href="#">Comprehensive MR Urography Protocol: Equally Good Diagnostic Performance and Enhanced Visibility of the Upper Urinary Tract Compared to Triple-Phase CT Urography</a> | -    | 73%   |

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@misc{Sudah, Mazen_Masarwah, Amro_Kainulainen, Sakari_Pitkänen, Marja_Matikka, Hanna_Dabravolskaite, Vaiva_Aaltomaa, Sirpa_Vanninen, Ritva_2016, title=[Visualization scores.], publisher=[Figshare], author={Sudah, Mazen and Masarwah, Amro and Kainulainen, Sakari and Pitkänen, Marja and Matikka, Hanna and Dabravolskaite, Vaiva and Aaltomaa, Sirpa and Vanninen, Ritva}, year={2016}}
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## Comprehensive MR Urography Protocol: Equally Good Diagnostic Performance and Enhanced Visibility of the Upper Urinary Tract Compared to Triple-Phase CT Urography

Mazen Sudah; Amro Masarwah; Sakari Kainulainen; Marja Pitkänen; Hanna Matikka; Vaiva Dabravolskaite; Sirpa Aaltomaa; Ritva Vanninen (2016)

**Publisher:** Public Library of Science

**Journal:** PLoS ONE

**Languages:** English

**Types:** Article

**Subjects:** Magnetic Resonance Imaging, Research Article, Diagnostic Medicine, Anatomy, Pelvis, Diagnostic Radiology, Radiology and Imaging, Oncology, Tomography, Cancer Detection and Diagnosis, Malignant Tumors, Cancers and Neoplasms, Biology and Life Sciences, Ureter, Neuroscience, Research and Analysis Methods, Musculoskeletal System, Medicine, Neuroimaging, Q, R, Imaging Techniques, Computed Axial Tomography, Science, Medicine and Health Sciences, Renal System

**Identifiers:** [pmc:PMC4934766](#), [doi:10.1371/journal.pone.0158673](#)

**Objectives** To prospectively compare the diagnostic performance and the visualization of the upper urinary tract (UUT) using a comprehensive 3.0T- magnetic resonance urography (MRU) protocol versus triple-phase computed tomography urography (CTU). **Methods** During the study period (January-2014 through December-2015), all consecutive patients in our tertiary university hospital scheduled by a urologist for CTU to exclude UUT malignancy were invited to participate. Diagnostic performance and visualization scores of 3.0T-MRU were compared to CTU using Wilcoxon matched-pairs test. **Results** Twenty patients (39 UUT excreting units) were evaluated. 3.0T-MRU and CTU achieved equal diagnostic performances. The benign etiology of seven UUT obstructions was clarified equally with both methods. Another two urinary tract malignant tumors and one benign extraordinary tumor were detected and confirmed. Diagnostic visualization was slightly better in the intrarenal cavity areas with CTU but worsened towards distal ureter. MRU showed consistently slightly better visualization of the ureter. In the comparison, full 100% visualizations were detected in all areas in 93.6% (with 3.0T-MRU) and 87.2% (with CTU) and >75% visualization in 100% (3.0T-MRU) and 93.6% (CTU). Mean CTU effective radiation dose was 9.2 mSv. **Conclusions** Comprehensive 3.0T-MRU is an accurate imaging modality achieving comparable performance with CTU; since it does not entail exposure to radiation, it has the potential to become the primary investigation technique in selected patients. [Trial Registration ClinicalTrials.gov NCT02606513](#)

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| <a href="#">Diameter measurement of the renal pelvis and ureter.</a><br>(2016) | 73%   |
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# Comprehensive MR Urography Protocol: Equally Good Diagnostic Performance and Enhanced Visibility of the Upper Urinary Tract Compared to Triple-Phase CT Urography

Table 2

Visualization scores.

| Area | Comparison between methods |      |          |      |      |          |      |      |          |      |      |          | Comparison between readers |      |          |      |      |          |
|------|----------------------------|------|----------|------|------|----------|------|------|----------|------|------|----------|----------------------------|------|----------|------|------|----------|
|      | CT1                        | MR3  | <i>p</i> | CT1  | MR4  | <i>p</i> | CT2  | MR3  | <i>p</i> | CT2  | MR4  | <i>p</i> | CT1                        | CT2  | <i>p</i> | MR3  | MR4  | <i>p</i> |
| A    | 5.48                       | 5.78 | .014     | 5.48 | 5.73 | .012     | 5.88 | 5.78 | .046     | 5.88 | 5.73 | .014     | 5.48                       | 5.88 | <.0001   | 5.78 | 5.73 | .527     |
| B    | 5.55                       | 5.68 | .225     | 5.55 | 5.73 | .071     | 5.88 | 5.68 | .005     | 5.88 | 5.73 | .014     | 5.55                       | 5.88 | .001     | 5.68 | 5.73 | .593     |
| C    | 5.63                       | 5.82 | .052     | 5.63 | 5.73 | .206     | 5.75 | 5.82 | .317     | 5.75 | 5.73 | .705     | 5.63                       | 5.75 | .025     | 5.82 | 5.73 | .157     |
| D    | 5.08                       | 5.88 | <.0001   | 5.08 | 5.75 | .001     | 5.5  | 5.88 | .066     | 5.5  | 5.75 | .254     | 5.08                       | 5.5  | <.0001   | 5.88 | 5.75 | .025     |
| E    | 5.05                       | 5.88 | <.0001   | 5.05 | 5.75 | <.0001   | 5.28 | 5.88 | .011     | 5.28 | 5.75 | .035     | 5.05                       | 5.28 | .019     | 5.88 | 5.75 | .025     |
| F    | 4.48                       | 5.85 | <.0001   | 4.48 | 5.78 | <.0001   | 5.3  | 5.85 | .001     | 5.3  | 5.78 | .003     | 4.48                       | 5.3  | <.0001   | 5.85 | 5.78 | 0.18     |

Mean visualization scores of the upper urinary tract (UUT) as evaluated by four observers and their significance values in the comparison of the performance of computed CT urography and MR urography (whole examination at different time intervals jointly analyzed). Opacification at CT urography and diagnostic visualization at MR urography were scored into 6 categories: Score 1 = 0% visualization; 2 = 1–25%; 3 = 26–50%; 4 = 51–75%; 5 = 76–99% and 6 = 100% for each anatomical area (A-F) separately.

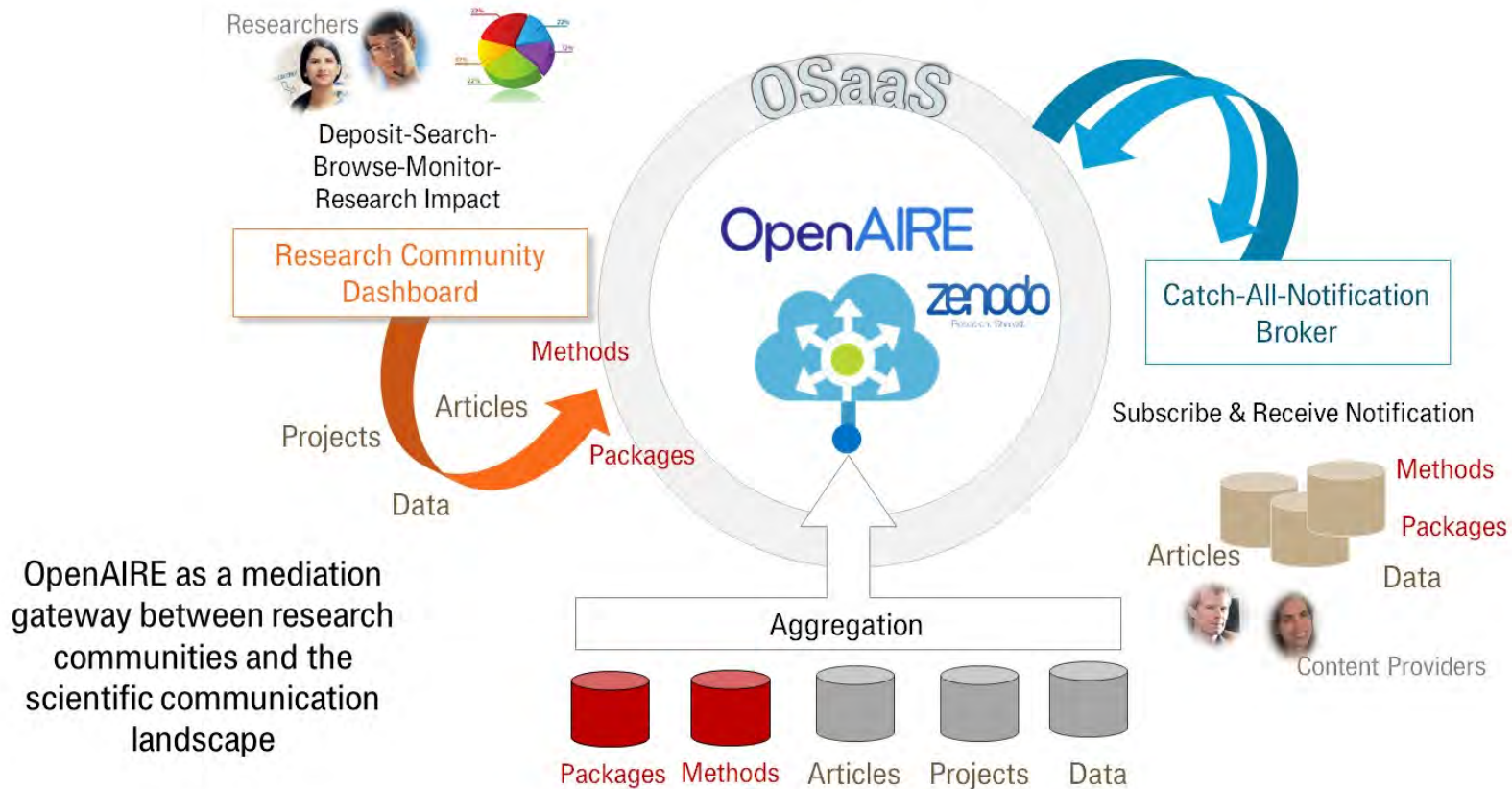
Areas: A = Upper cavities; B = Middle and Lower cavities; C = Renal pelvis; D = Ureter, proximal third; E = Ureter, middle third; F = Ureter, lower third.

CT1 = CT first observer; CT2: CT second observer; MR3: MR third observer; MR4: MR fourth observer

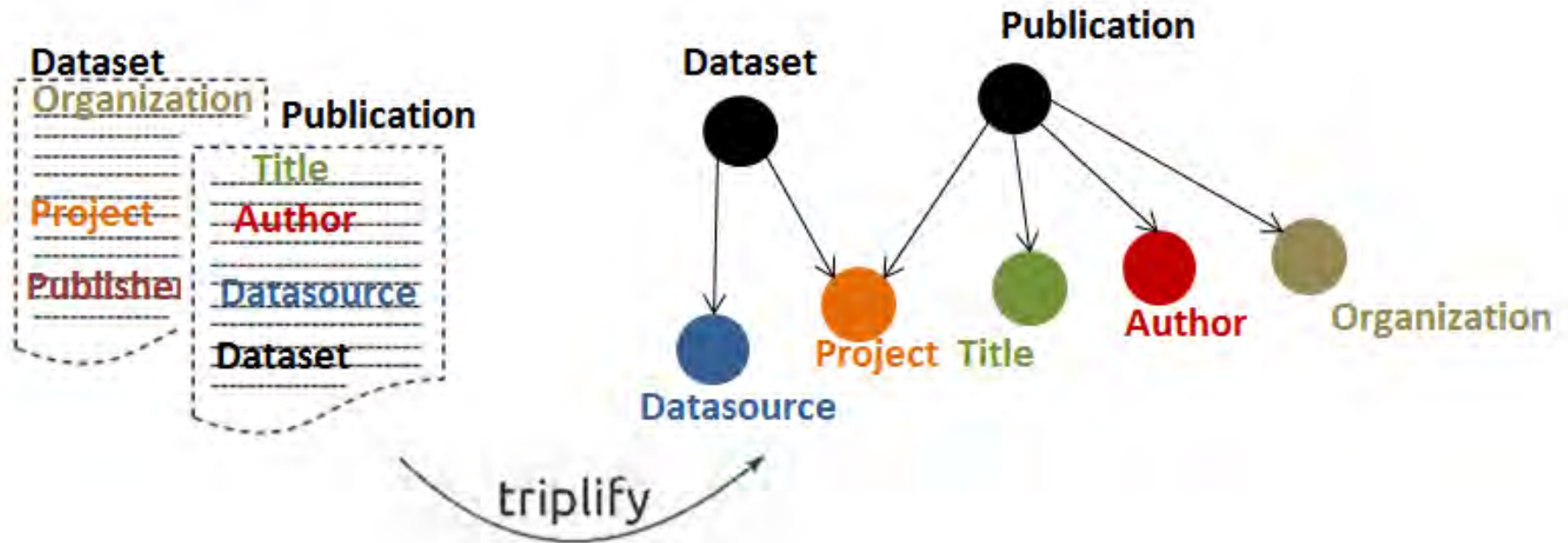
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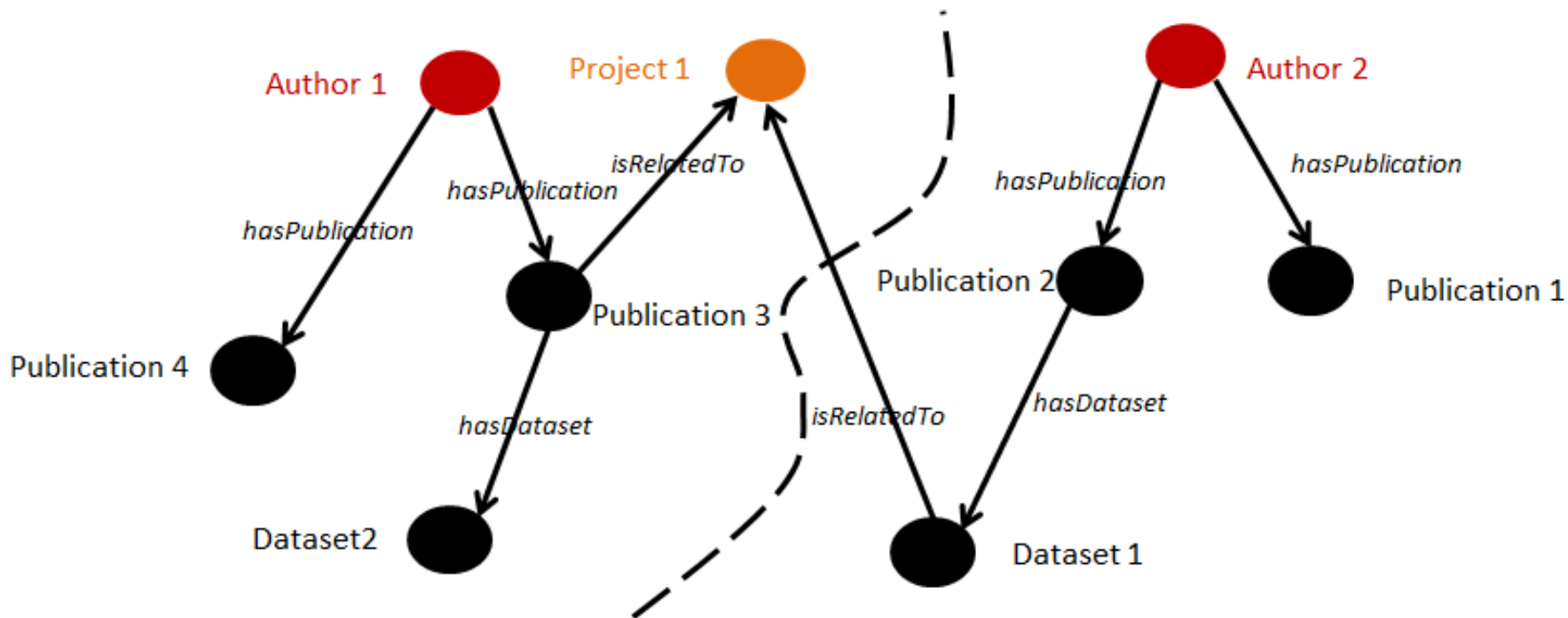
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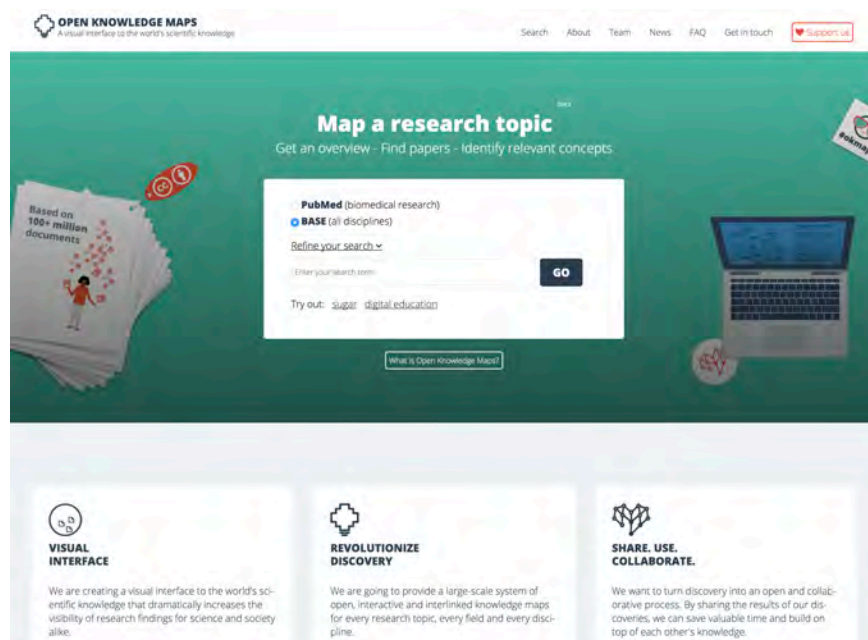








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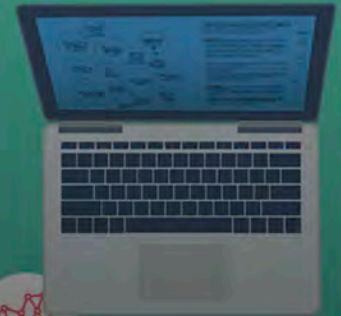
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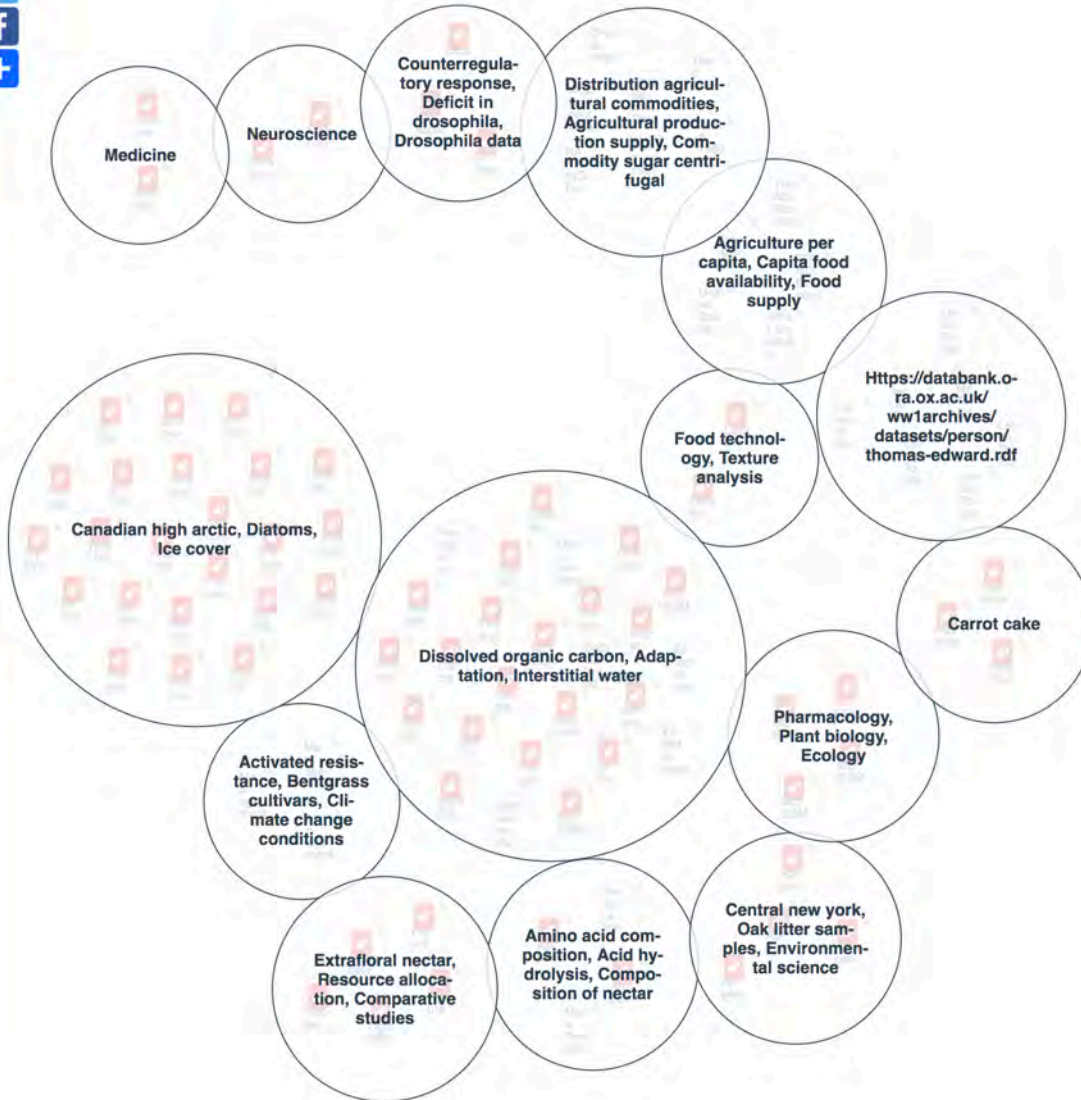
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100 documents (70 open access) Source: BASE Until 7 Nov 2017 Document type: Dataset



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**open access** The sugar dataset - A multimodal hyperspectral dataset for classification and research

F. (Friedrich) Melchert, A. (Andrea) Matros, M. (Michael) Biehl, U. (Udo) Seiffert (2016)

Abstract ; The sugar dataset is a multimodal hyperspectral dataset of sugar and sugar related substances. The substances that were used for the creation of dataset are:- Sugar Ester S170- Sugar Ester S770- Sugar Ester S1570- Sugar Ester P1570- D-Manni...

**Area:** Dissolved organic carbon, Adaptation, Interstitial water

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**open access** Appendix A. A table showing sugar and amino acid composition of nectar and honeydew sources.

Nico Blü, thgen, Konrad Fiedler (2016)

Abstract ; A table showing sugar and amino acid composition of nectar and honeydew sources.

**Area:** Amino acid composition, Acid hydrolysis, Composition of nectar

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**More than just sugar: allocation of nectar amino acids and fatty acids in a Lepidopteran - Excel file of article data set**

Eran Levin, Marshall McCue, Goggy Davidowitz (2016-12-21)

Excel data file for article: More than just sugar: allocation of nectar amino acids and fatty acids in a Lepidopteran. Authors Eran Levin, Marshall McCue and Goggy Davidowitz

**Area:** Amino acid composition, Acid hydrolysis, Composition of nectar

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**Effect of thermal processings on physical, chemical properties and volatile compounds of coconut (Cocos nucifera L.) sugar**

Araya Rakphon Voranuch Srijesadaruk (2017)

Abstract ; The objectives of this research were to study the physical, chemical properties and volatile compounds of both coconut sap and sugar and changes in the physical, chemical properties and volatile compounds of coconut sugar during heating pr...

**Area:** Dissolved organic carbon, Adaptation, Interstitial water

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**Documenting the American Sugar Economy 1845-1914**

Richard Follett, Rick Halpern (2008-05-01)

Documenting Louisiana Sugar provides historians and social scientists with an innovative tool for examining plantation economy and agrarian society in the American South. Utilizing exceptionally detailed annual crop returns and additional census reco...

**Area:** Dissolved organic carbon, Adaptation, Interstitial water

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**Management of bentgrass cultivars for activated resistance to Microdochium nivale under climate change conditions - Sugar content**

Sara Marie Stricker, Tom Hsiang, Annick Bertrand (2017)

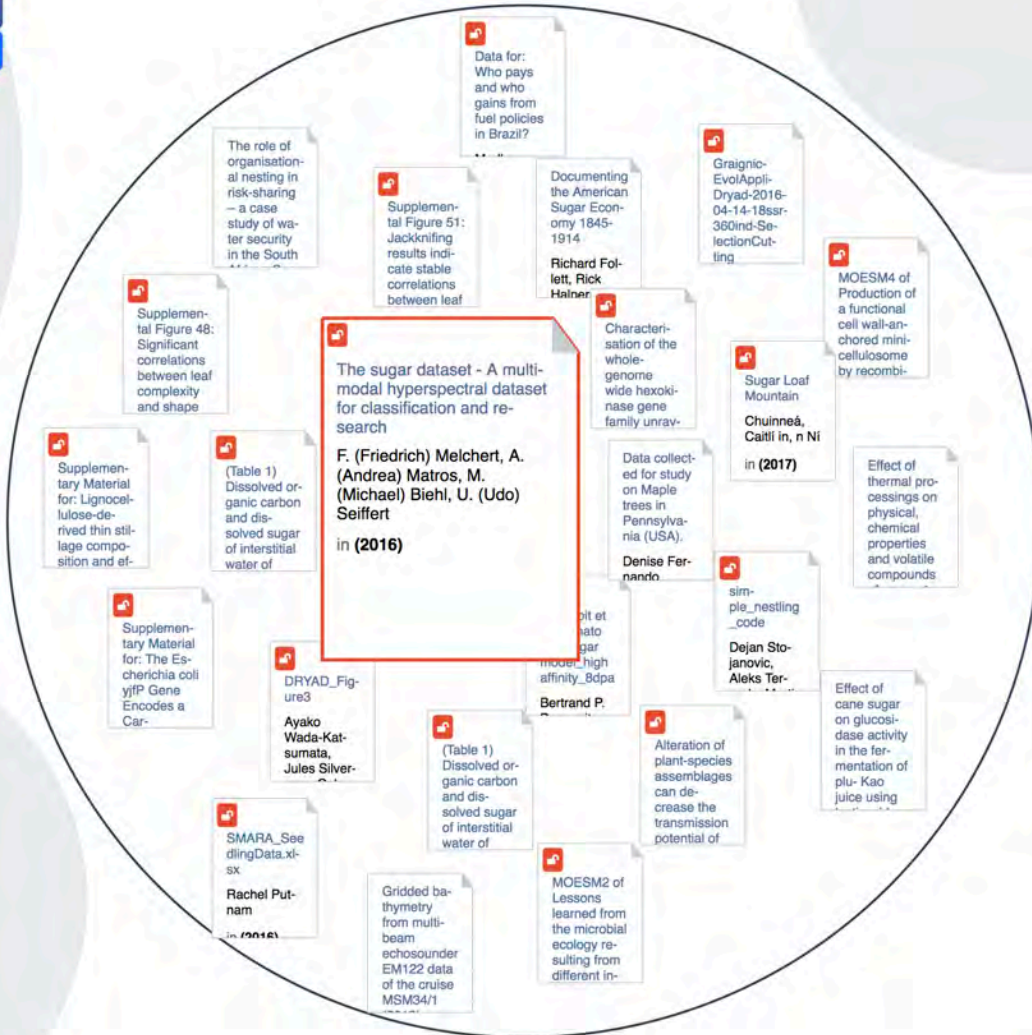
Abstract ; This research investigated the potential impact of predicted climate change on the fungal pathogen Microdochium nivale, which causes Microdochium patch on turfgrasses in temperate climates. Turfgrasses were inoculated with M. nivale and as...

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**Area:** Dissolved organic carbon, Adaptation, Interstitial water



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**open access** **The sugar dataset - A multimodal hyperspectral dataset for classification and research**

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F. (Friedrich) Melchert, A. (Andrea) Matros, M. (Michael) Biehl, U. (Udo) Seiffert (2016)

**Abstract** ; The sugar dataset is a multimodal hyperspectral dataset of sugar and sugar related substances. The substances that were used for the creation of dataset are:- Sugar Ester S170- Sugar Ester S770- Sugar Ester S1570- Sugar Ester P1570- D-Mannitol- D-Sorbitol- D-Glucose- D-Galactose- D-Fructose. All of the substances were hyperspectrally recorded using different sensors, namely:- Canon EOS 70D- ASD FiledSpec 3- Neo VNIR-1600- Neo VNIR-1800- Neo SWIR-320m-e- Neo SWIR-384- Nuance Ex. The different sensors cover different wavelength ranges as well as different wavelength resolutions. This creates a unique dataset, that not only takes the question of hyperspectral classification, but also enable the research on topics like high dimensional data exploration, sensor invariant classification and dimensionality reduction.

**Keywords:** Classification; Dimensionality Reduction; Hyperspectral data; Model Transfer; Model invariant classification




**Area:** Dissolved organic carbon, Adaptation, Interstitial water



# Dataset: The sugar dataset - A multimodal hyperspectral dataset for classification and research


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| title               | ? | The sugar dataset - A multimodal hyperspectral dataset for classification and research   |
| creator             | ? |  Melchert, F. (Friedrich)   |
| creator             | ? | Matros, A. (Andrea)  |
| creator             | ? | Biehl, M. (Michael)  |
| creator             | ? | Seiffert, U. (Udo)   |
| contributor         | ? | Fraunhofer Institute for Factory Operation and Automation IFF, Magdeburg, Germany  |
| contributor         | ? | Leibniz Institute of Plant Genetics and Crop Plant Research (IPK), Gatersleben, Germany  |
| contributor         | ? | University of Groningen, Johann Bernoulli Institute for Mathematics and Computer Science, Groningen, The Netherlands   |
| date accepted       | ? | 2016-06-30   |
| date created        | ? | 2016-03-14 through 2016-06-22  |
| date published      | ? | 2016   |
| description         | ? | <p>The sugar dataset is a multimodal hyperspectral dataset of sugar and sugar related substances. The substances that were used for the creation of dataset are:</p> <ul style="list-style-type: none"> <li>- Sugar Ester S170</li> <li>- Sugar Ester S770</li> <li>- Sugar Ester S1570</li> <li>- Sugar Ester P1570</li> <li>- D-Mannitol</li> <li>- D-Sorbitol</li> <li>- D-Glucose</li> <li>- D-Galactose</li> <li>- D-Fructose</li> </ul> <p>All of the substances were hyperspectrally recorded using different sensors, namely:</p> <ul style="list-style-type: none"> <li>- Canon EOS 70D</li> <li>- ASD FiledSpec 3</li> <li>- Neo VNIR-1600</li> <li>- Neo VNIR-1800</li> <li>- Neo SWIR-320m-e</li> <li>- Neo SWIR-384</li> <li>- Nuance Ex</li> </ul> <p>The different sensors cover different wavelength ranges as well as different wavelength resolutions. This creates a unique dataset, that not only tackles the question of hyperspectral classification, but also enable the research on topics like high dimensional data exploration, sensor invariant classification and dimensionality reduction.</p> |
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| related publication | ? |  <a href="#">The sugar dataset: A multimodal hyperspectral dataset for classification and research. (MIWOCI 2016)</a>   |
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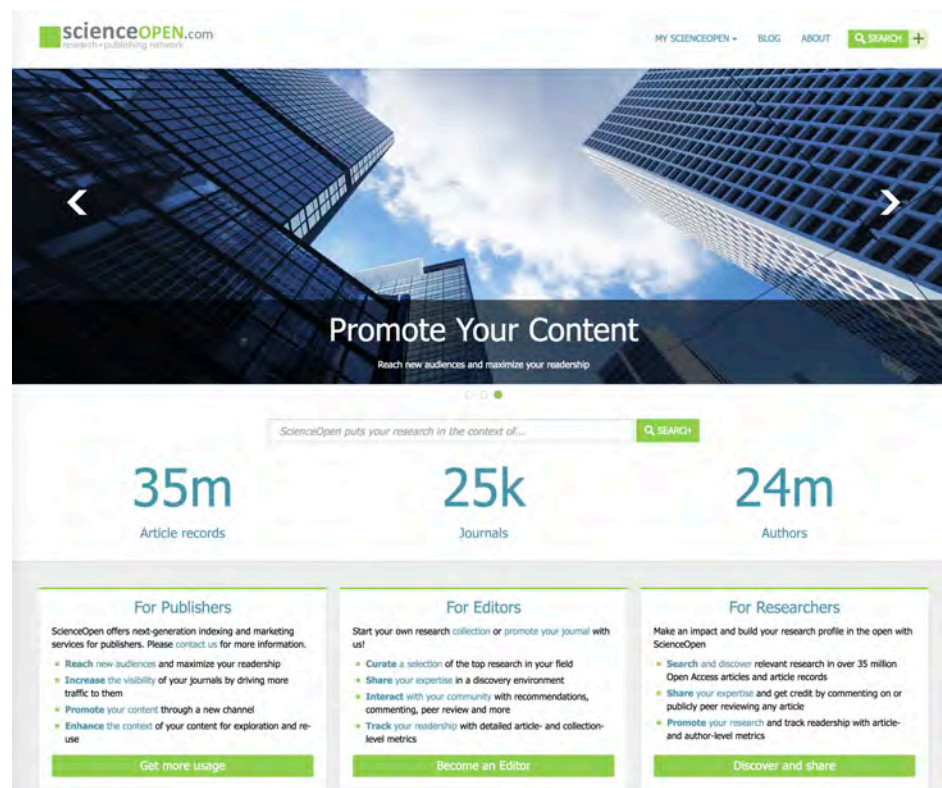
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Caspar A Hallmann, Martin Sorg, Eelke Jongejans, Henk Siepel, Nick Hofland, 7 more... (2017)

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Marcus Eriksen, Laurent C. M. Lebreton, Henry Carson, Martin Thiel, Charles J. Moore, 4 more... (2014)

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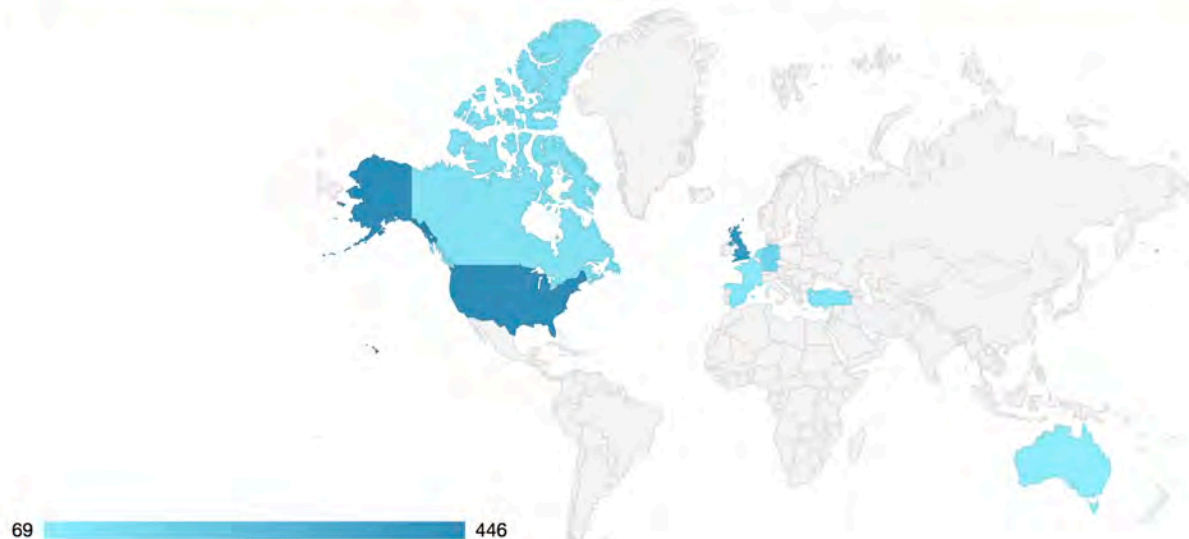
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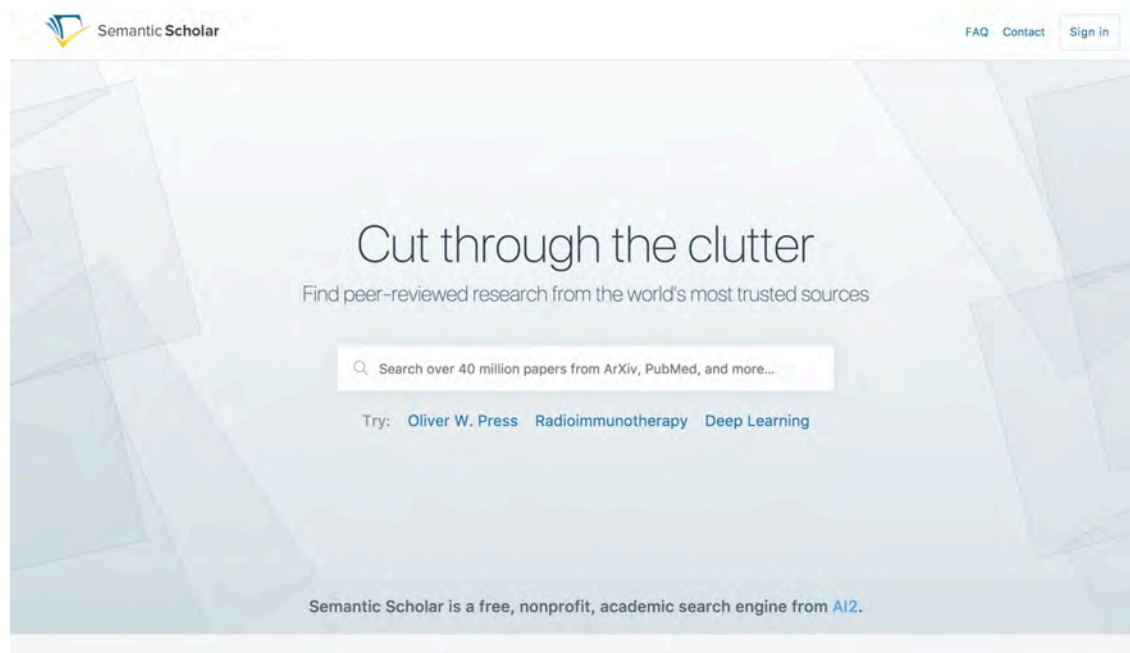
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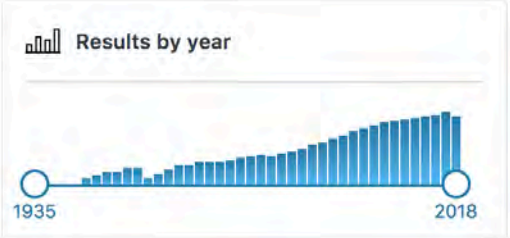
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 2/ the optimization algorithm than on the structure? Thinking also to Zheng et al. paper here [arxiv.org/abs/1611.03530](https://arxiv.org/abs/1611.03530)  
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# Understanding deep learning requires rethinking generalization

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Chiyuan Zhang, Samy Bengio, Moritz Hardt, Benjamin Recht, Oriol Vinyals  
 Published 2016 in ArXiv

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## Abstract

Despite their massive size, successful deep artificial neural networks can exhibit a remarkably small difference between training and test performance. Conventional wisdom attributes small generalization error either to properties of the model family, or to the regularization techniques used during training. Through extensive systematic experiments, we show how these traditional approaches fail to explain why large neural networks generalize well in practice. Specifically, our experiments establish that state-of-the-art convolutional networks for image classification trained with stochastic gradient methods easily fit a random labeling of the training data. This phenomenon is qualitatively unaffected by explicit regularization, and occurs even if we replace the true images by completely unstructured random noise. We corroborate these experimental findings with a theoretical construction showing that simple depth two neural networks already have perfect finite sample expressivity as soon as the number of parameters exceeds the number of data points as it usually does in practice. We interpret our experimental findings by comparison with traditional models.

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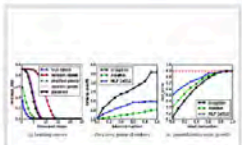


Figure 1

| Model       | Regularizer | Training Accuracy | Test Accuracy |
|-------------|-------------|-------------------|---------------|
| VGG16       | None        | 94.2              | 86.7          |
|             | L2          | 94.2              | 86.7          |
| ResNet-152  | None        | 95.3              | 88.1          |
|             | L2          | 95.3              | 88.1          |
| ResNeXt-101 | None        | 95.5              | 88.3          |
|             | L2          | 95.5              | 88.3          |

Table 1

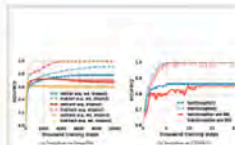


Figure 2

| Model       | Regularizer | Training Accuracy | Test Accuracy |
|-------------|-------------|-------------------|---------------|
| VGG16       | None        | 94.2              | 86.7          |
|             | L2          | 94.2              | 86.7          |
| ResNet-152  | None        | 95.3              | 88.1          |
|             | L2          | 95.3              | 88.1          |
| ResNeXt-101 | None        | 95.5              | 88.3          |
|             | L2          | 95.5              | 88.3          |

Table 2

## Cite this paper

```
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  title={Understanding deep learning requires rethinking generalization},
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