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POLITECHNIKA WARSZAWSKA

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Dlaczego warto publikować
modele matematyczne na
platformie Matlab Central

Bartłomiej UFNALSKI

9-11 maja 2018
Kraków / Białka Tatrzańska

XVII Sympozjum Energoelektronika w Nauce
i Dydaktyce

ENiD 2018

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Inicjatywy innych środowisk: medycyna

Neth Heart J (2017) 25:297–303
DOI 10.1007/s12471-017-0974-3

SPECIAL ARTICLE

Data sharing: A new editorial initiative of the International Committee of Medical Journal Editors

Implications for the Editors' Network

F. Alfonso¹

Published online: 3 April 2017

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The ICMJE considers that sharing '*de-identified*' individual patient data should become part of the publication process of clinical trials [14]. This strategy protects patient's confidentiality rights. The requirement, however, is restricted to the individual-patient data underpinning the results presented in the published article. Importantly, a clear plan for data sharing should be disclosed at the time of initial trial registration and should be also presented at the time of manuscript submission. The proposal requires clinical trialists to declare that they will share their data publicly as a prerequisite for publishing the trial [14]. They should promise to freely release individual patient raw data at the time they submit the manuscript for consideration.



Inicjatywy innych środowisk: ekonomia

Replication and Transparency in Economic Research

By **Jan H. Höfler**

DEC 3, 2015 | HISTORY OF ECONOMIC THOUGHT

In 2003, McCullough and Vinod wrote, “Research that cannot be replicated is not science, and cannot be trusted either as part of the profession’s accumulated body of knowledge or as a basis for policy.”(1)

Twelve years later, the economics profession has made some progress: journals such as the American Economic Review and the Journal of Political Economy have data archives for empirical research and provide material, such as the code of the statistical software, which is necessary to obtain the published results, but these journals are in the minority.(2) The



Inicjatywy innych środowisk: ekonomia

nature.com > nature > comment > article a natureresearch journal

nature
International journal of science



COMMENT • 21 FEBRUARY 2018

CORRECTION [22 MARCH 2018](#)

How to make replication the norm

The publishing system builds in resistance to replication. Paul Gertler, Sebastian Galiani and Mauricio Romero surveyed economics journals to find out how to fix it.

Paul Gertler

Paul Gertler is a professor of economics in the Haas School of Business at the University of California, Berkeley, USA.

[Contact](#)

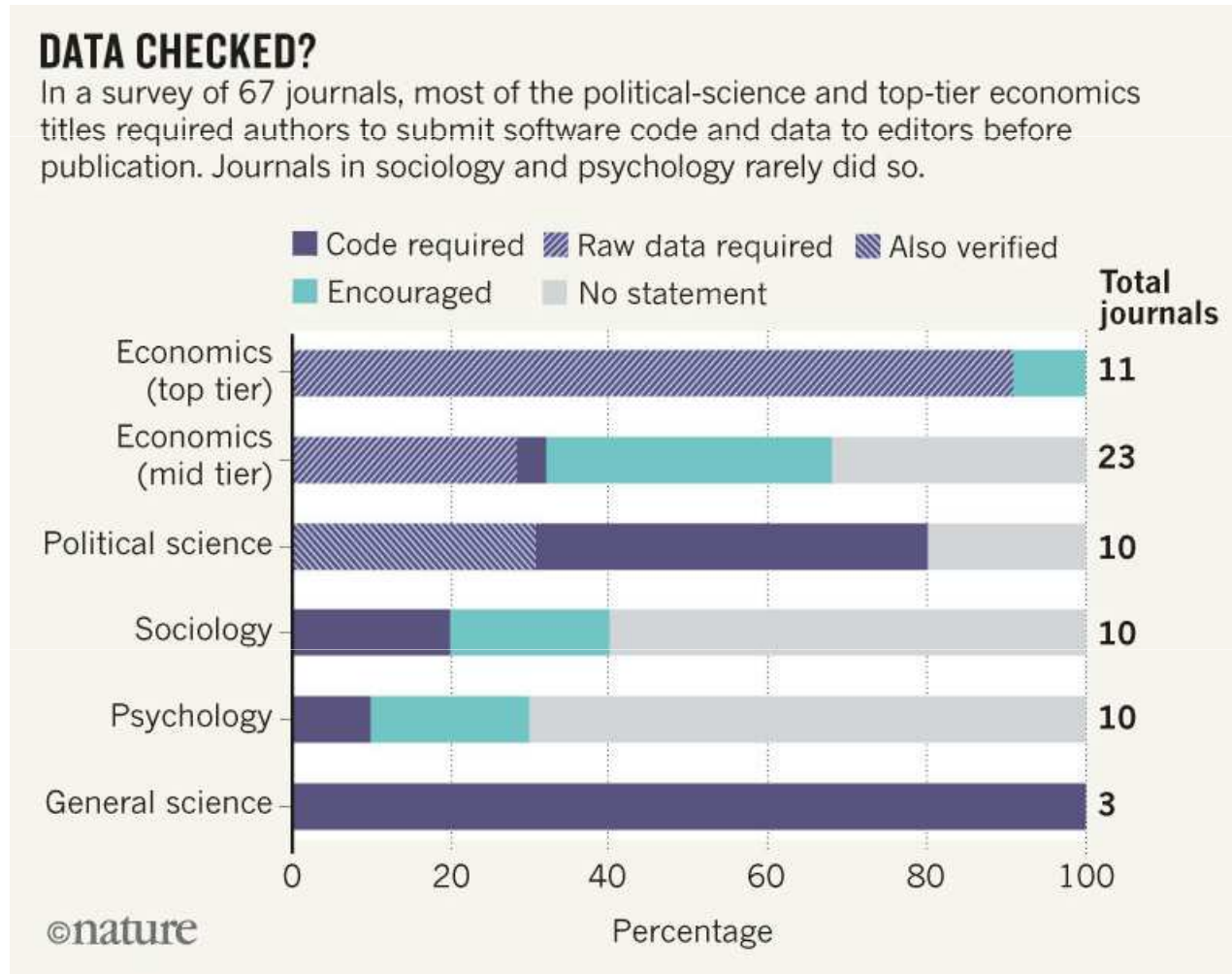
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Inicjatywy innych środowisk: ekonomia

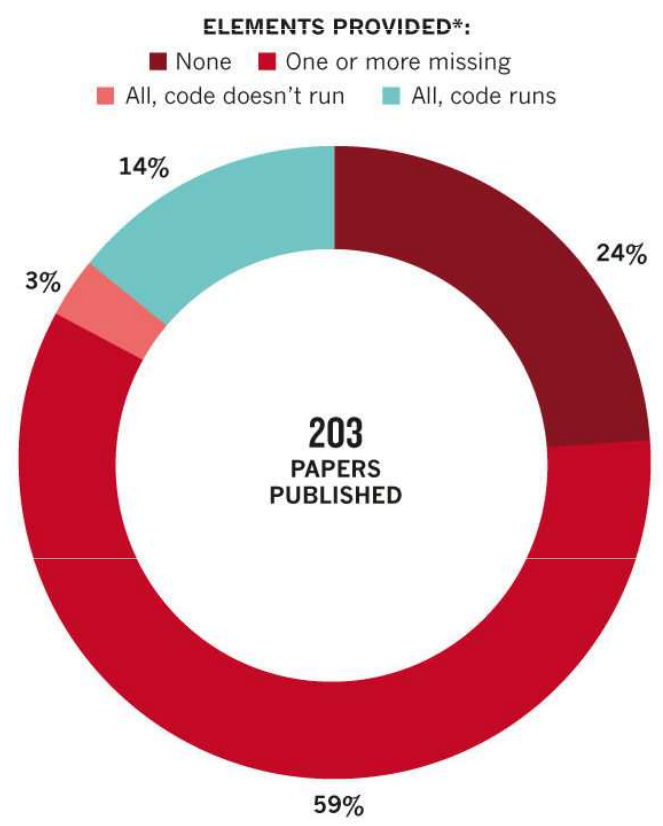


Source: <https://www.nature.com/articles/d41586-018-02108-9>



Inicjatywy innych środowisk: ekonomia

REPLICATION RARELY POSSIBLE
An analysis of 203 economics papers found that fewer than one in seven supplied the materials needed for replication.



*The elements assessed were raw data, raw code, estimation data and estimation code. ©nature

Source: <https://www.nature.com/articles/d41586-018-02108-9>



A gdzie podziały się nauki techniczne?

A gdzie w szczególności jest nasze środowisko?

Osobiście nie spotkałem się z ani jednym czasopismem z naszej dziedziny, które wymagałoby opublikowania modelu symulacyjnego, przy użyciu którego otrzymano zamieszczone w artykule wyniki.

Replikowalność badań komputerowych (numerycznych, symulacyjnych) jest w tej sytuacji praktycznie żadna, bo zbudowanie modelu identycznego z naszym na podstawie opisów jest bardzo pracochłonne lub wręcz niemożliwe z uwagi na skąpość tych opisów.

Inicjatywa naszego środowiska: File Exchange?



The screenshot shows the MathWorks File Exchange interface. At the top left is the MathWorks logo. To the right is a search bar with 'File Exchange' selected in a dropdown menu. Below the search bar are links for 'Create Account' and 'Sign In'. A navigation menu includes 'Products', 'Solutions', 'Academia', 'Support', 'Community' (highlighted), and 'Events'. The main header is 'File Exchange'. On the left sidebar, there are links for 'MATLAB Central', 'Files', 'Authors', 'Tags', 'Comments', and 'My File Exchange' with a 'Submit a File' button and 'About File Exchange' link. The main content area has a 'Search Authors' box with 'ufnalski' entered. Below it, a table lists search results. The first result is for Bartłomiej Ufnalski from the Institute of Control and Industrial Electronics, Warsaw Univ. of Tech., with 782 downloads, 48 submissions, and a 4.7 rating. A 'Contact us' link is at the bottom left of the main content area.

Search: File Exchange

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ufnalski

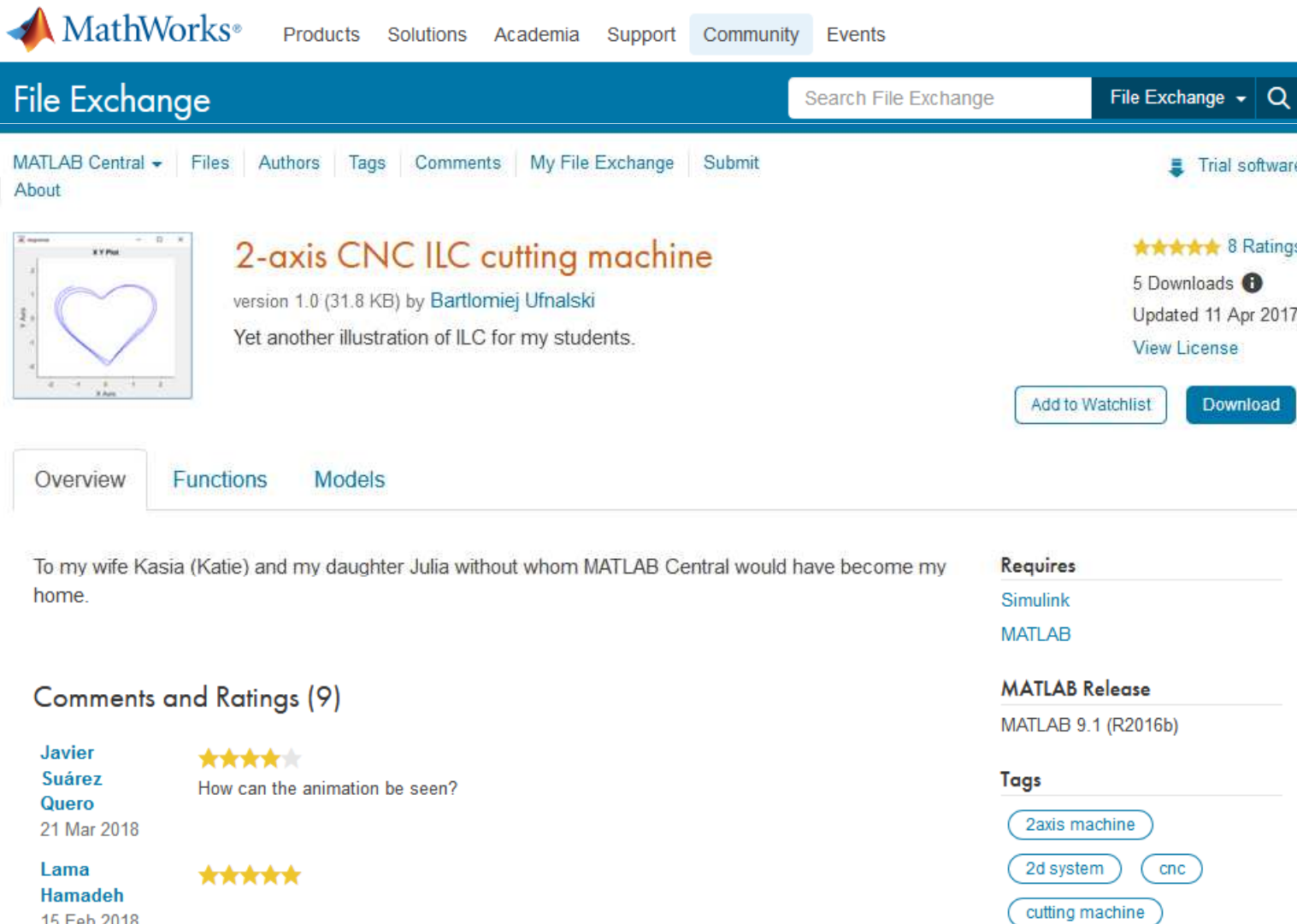
1 - 1 of 1

Rank	Name	Company/University	Downloads (last 30 days)	Submissions	Last Submission	Avg Rating
42	Bartłomiej Ufnalski	Institute of Control and Industrial Electronics, Warsaw Univ. of Tech.	782	48	10 Jan 2018	★★★★★ 4.7 49 ratings

1 - 1 of 1

[Contact us](#)

Inicjatywa naszego środowiska: File Exchange?



The screenshot shows the MathWorks File Exchange interface. At the top, there is a navigation bar with links for Products, Solutions, Academia, Support, Community, and Events. Below this is a search bar and a dropdown menu for 'File Exchange'. The main content area features a card for a file titled '2-axis CNC ILC cutting machine' by Bartłomiej Ufnalski. The card includes a thumbnail image of a heart-shaped path on a coordinate plane, a version number (1.0), file size (31.8 KB), and a description: 'Yet another illustration of ILC for my students.' It also displays 8 ratings (5 stars), 5 downloads, and an update date of 11 Apr 2017. There are buttons for 'Add to Watchlist' and 'Download'. Below the card, there are tabs for 'Overview', 'Functions', and 'Models'. The 'Overview' tab is active, showing a dedication: 'To my wife Kasia (Katie) and my daughter Julia without whom MATLAB Central would have become my home.' To the right, there are sections for 'Requires' (Simulink, MATLAB), 'MATLAB Release' (MATLAB 9.1 (R2016b)), and 'Tags' (2axis machine, 2d system, cnc, cutting machine). At the bottom, there are 'Comments and Ratings (9)'. Two comments are visible: one from Javier Suárez Quero (21 Mar 2018) with 4 stars asking 'How can the animation be seen?', and one from Lama Hamadeh (15 Feb 2018) with 5 stars.





Pros and cons

- ✓ transparentność i autentyczność – zaufanie jako waluta przyszłości;
- ✓ replikowalność, weryfikowalność;
- ✓ rozpowszechnianie wiedzy w sposób przyjazny odbiorcy;
- ✓ element budowania rozpoznawalności swojej osoby, projektu, uczelni;
- ✓ promowanie konkretnego artykułu, w tym poprzez dołączenie kopii autorskiej (**szereg czasopism na to pozwala!**);
- ✓ interakcja z pobierającymi modele (comments and ratings), w tym nowe znajomości;
- ✓ materiały dydaktyczne dla studentów zawsze pod ręką;
- ✓ możliwość bieżącego modyfikowania/poprawiania – np. jako dodatek do podręcznika;
- ✓ możliwość zacytowania modelu w artykule – aktualnie przekonuję zespół Mathworksa do stworzenia dedykowanej sekcji w obrębie File Exchange o roboczej nazwie **Scientific File Exchange**;
- zapytania emailowe o prace domowe;
- nieuczciwe generowanie przez osoby trzecie wyników do artykułów bez podania cytowania.



Przykład mojego profilu (stan na 08.05.2018)

- ✓ 48 modeli od 2014 roku;
- ✓ 42 pozycja w rankingu na ponad 13 tys. (pozycja 28 po odliczeniu 14-stu zespołów samego Mathworksa);
- ✓ 780+ pobrań modeli przez ostatnie 30 dni;
- ✓ jeżeli chodzi o polską reprezentację w pierwszej 500-ce, to na 193-ciej pozycji jest jeszcze tylko Marek Michalczuk z naszego zespołu (dalszych pozycji nie przeglądałem);
- ✓ średnia ocena modeli to 4,7 gwiazdki na 5 możliwych – najczęstsze zastrzeżenie to niedziałający model (brak biblioteki PLECS?);
- szacunkowo jedno zapytanie emailowe tygodniowo o pracę domową;
- jeden znany nam przypadek wygenerowania przez osoby trzecie wyników do artykułu bez podania cytowania (przy wykorzystaniu modelu opublikowanego na profilu Marka) – zgłosiliśmy do arbitrażu w IEEE, bo cały artykuł to był praktycznie plagiat, ale sprawa ugrzęzła i ją porzuciliśmy.

Let's meet at MATLAB Central File Exchange and share our models!

The screenshot shows the MathWorks Community Profile for Bartłomiej Ufnalski. The page header includes the MathWorks logo and navigation links for Products, Solutions, Academia, Support, Community, and Events. The main navigation bar features 'Community Profile', a search box for 'Search Support', and a 'Support' dropdown menu. Below the navigation bar, there are links for 'MATLAB Answers', 'File Exchange', 'Cody', 'Blogs', 'Link Exchange', and 'ThingSpeak', along with a 'Trial software' button. The profile section includes a profile picture of Bartłomiej Ufnalski, his name, and affiliation with the Institute of Control and Industrial Electronics, Warsaw Univ. of Tech. It also displays his total contributions (48) and a list of his recent contributions in the File Exchange. Two contributions are visible, both titled 'Full-state feedback servo controller tuning using PSO' and 'Full-state feedback controller tuning using PSO', both submitted 4 months ago and having 12 downloads. The profile also shows two badges: 'FILE EXCHANGE 42 RANK of 13,519' and 'MATLAB ANSWERS N/A'.

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Community Profile Search Support Support

MATLAB Answers File Exchange Cody Blogs Link Exchange ThingSpeak Trial software

MATLAB Answers File Exchange Cody Blogs Link Exchange ThingSpeak Trial software

Contributions Badges

FILE EXCHANGE 42 RANK of 13,519 ACTIVITY (12 MONTHS)

MATLAB ANSWERS N/A ACTIVITY (12 MONTHS)

Contributions in All View by Date

Submitted Full-state feedback servo controller tuning using PSO An a la linear quadratic regulator. 4 months ago | 12 downloads | ★★★★★

Submitted Full-state feedback controller tuning using PSO A la linear quadratic regulator.

Bartłomiej Ufnalski 0=1+eureka moments

Bartłomiej Ufnalski 0=1+eureka moments

48 total contributions since 2014

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Professional Interests:

