



Access Science
to najpopularniejsza
multimedialna
baza wiedzy - encyklopedia
nauki i technologii dla:

- studentów
- kadry dydaktycznej
- Inżynierów
- naukowców

Wielokrotnie nagradzana w
kategorii **STEM** „teaching and
learning”

STEM education:

- Science
- Technology
- Engineering
- Mathematics

ACCESS Science
The Science Authority

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Search

Agriculture, Forestry & Soils
Anthropology & Archeology
Astronomy & Space Science
Biology & Biomedicine
Botany

Chemistry
Computing & Information Technology
Earth Science
Engineering & Materials
Environmental Science

Food Science & Technology
Health Sciences
Mathematics
Military Science
Navigation

Paleontology
Physics
Psychiatry & Psychology
Science Theory & Philosophy
Zoology

Browse Articles: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z #

Explore

Sargassum weed: This free-floating algae is unexpectedly piling up along Caribbean shorelines.
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Neuromusicology: How does listening to music influence your brain's functioning?
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Trending on AccessScience

- Heart regeneration
- Invasive species
- Robotic surgery
- Aorta
- Electromagnetism
- Problem solving (psychology)
- Collision (physics)
- How Anesthesia Works
- Plant-water relations
- Osmosis

Do You Know?

Home

About

Articles

Biography




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Explore



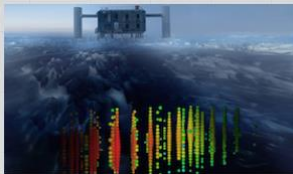
Sargassum weed: This free-floating algae is unexpectedly piling up along Caribbean shorelines.
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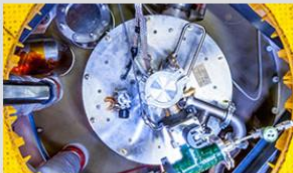
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Trending on AccessScience

- Heart regeneration
- Invasive species
- Robotic surgery
- Aorta
- Electromagnetism
- Problem solving (psychology)
- Collision (physics)
- How Anesthesia Works
- Plant-water relations
- Osmosis

Do You Know?



How strong are spider webs?
[Reveal answer](#)

Głównym **źródłem**, z którego dostarczane są informacje to **McGraw-Hill Encyclopedia of Science and Technology** (ed.10)

- tworzą ją i uzupełniają **nobliści** (42 osoby)
- na bieżąco **aktualizowana** i uzupełniana, rozszerzana o nowe pojęcia i zagadnienia

Główne dziedziny bazy:

- Inżynieria & Materiałoznawstwo (9 460)
- Fizyka (5 428)
- Biologia i biomedycyna (4 179)
- Nauki o Ziemi (3 263)
- Chemia (2 606)
- Zoologia (2 443)
- Nauki o zdrowiu (1 801)
- Astronomia & Nauki pokrewne (1 683)
- Botanika (1 676)
- Rolnictwo, leśnictwo i gleboznawstwo (1 298)
- Paleontologia (1 286)
- Informatyka i technologie komputerowe (1 233)
- Nauki o środowisku (907)
- Matematyka (686)
- Psychiatria i psychologia (629)
- Nauka i technologia żywności (467)
- Antropologia i archeologia (449)
- Nawigacja (233)
- Nauki o wojskowości (199)
- Teoria i filozofia nauki (108)

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I'm looking for... Search By Topic

AccessScience > Articles

Search Results

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32 203 results

1 2 3 4 Next »

Refine this search

Content Type

- ☒ All Content (32 203)
- ☐ Image (19 330)
- ☐ Article (8 710)
- ☐ Biography (2 908)
- ☐ News (518)
- ☐ Video / Animation (415)
- ☐ Briefing (288)
- ☐ Project (21)
- ☐ Image Gallery (13)

Topic

- ☒ All Topics (32 203)
- ☐ Engineering & Materials (9 468)
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An article from Science News Sep 2018

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- Ponad **8700** artykułów online z *Encyclopedia of Science & Technology* (ed. 10);
- Aktualizacje naukowe z *Yearbooks of Science & Technology*;
- Ponad 115 000 + definicji z *Dictionary of Scientific and Technical Terms*;
- **18 000** ilustracji, grafik oraz bibliografii zawierających ponad 28 000 cytowań;
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- Ponad **3 000** biografii najbardziej znanych naukowców zaczerpniętych z *Hutchinson Dictionary of Scientific Biography*;

Wyszukiwanie podstawowe

Przeglądanie bazy w/g

- wyszukiwanych haseł

- dziedzin nauki

- artykuły
- streszczenia
- biografie
- newsy z mediów
- gotowe projekty

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Biology & Biomedicine	Engineering & Materials	Military Science	Science Theory & Philosophy
Botany	Environmental Science	Navigation	Zoology

Browse Articles: A B C D E F G H I J K L M N O P Q R S T U V W X Y Z #

Przeglądanie artykułów tematycznie lub alfabetycznie

The screenshot shows the ACCESS Science website interface. The top navigation bar includes links for Home, About, **Articles** (highlighted with a red box), Biographies, Media, For Faculty, and For Admins. Below the navigation bar is a search section with the text 'Search AccessScience', a search input field containing 'I'm looking for...', a 'Search' button, and a 'Browse Articles' link. The main content area is titled 'Articles' and features a sub-navigation bar with 'Articles A-Z' (highlighted with a red box) and 'Articles by Topic'. Below this is an alphabetical index bar with letters A through Z, each in a small box, with 'A' highlighted. The 'A' section lists various articles, including 'A15 phases', 'Aardvark', 'Abaca', 'Abacus', 'ABC lipid transporters', 'Abdomen', 'Aberration (optics)', 'Aberration of light', 'Abrasive', 'Abscissic acid', 'Abscission', 'Absolute zero', 'Absorbable orthopedic implants', and 'Absorption'. A sidebar on the right contains the 'my ACCESS Science' logo and the text 'Save articles, images, searches and more!'.

Przeglądanie artykułów tematycznie

The screenshot displays the ACCESS Science website interface. At the top, a navigation bar includes links for Home, About, Articles (highlighted with a red box), Biographies, Media, For Faculty, and For Admins. Below this is a search bar with the placeholder text 'I'm looking for...' and a 'Search' button. To the right of the search bar is a 'Browse Articles' section with a 'Select Topic' dropdown menu. The main content area is titled 'Articles' and shows a breadcrumb trail: 'AccessScience > Articles > Earth Science > Earth science - general'. Below this, there are two tabs: 'Articles A-Z' and 'Articles by Topic' (highlighted with a red box). The 'Articles by Topic' section features a large red banner with the text 'Topic: Earth Science'. To the left of the main article list is a sidebar with a 'Select Topic' dropdown and a list of subtopics. The 'Earth science - general' subtopic is highlighted with a red box. The main article list displays various topics with links to articles, including 'Earth', 'Earth sciences', 'Environmental geology', 'Geology', 'Geomorphology', 'Hyperspectral remote sensing (mapping)', 'Landslide detection and modeling', 'Remote sensing', 'Supercontinent', and 'Topographic surveying and mapping'. On the right side of the page, there is a 'my ACCESS Science' section with a 'Save articles, images, searches and more!' button, and a 'Trending in this Topic' section listing popular topics like 'Argillaceous rocks', 'Contact aureole', 'Topographic surveying and mapping', 'Seamount and guyot', and 'Blueschist'. A 'Back to Top' button is located at the bottom right of the main content area.

Home About **Articles** Biographies Media For Faculty For Admins

Search AccessScience Advanced Search ? Browse Articles

I'm looking for... Search

Select Topic

AccessScience > Articles > Earth Science > Earth science - general

Articles

Articles A-Z **Articles by Topic**

Topic:
Earth Science

Select Topic

Subtopics:

Earth science - general

Geochemistry

Geology and geodesy

Geophysics

Hydrology and glaciology

Subtopic:
Earth science - general

Earth - [Article]
Earth sciences - [Article]
Environmental geology - [Article]
Geology - [Article]
Geomorphology - [Article]
Hyperspectral remote sensing (mapping) - [Research Review]
Landslide detection and modeling - [Briefing]
Remote sensing - [Article]
Supercontinent - [Article]
Topographic surveying and mapping - [Article]

Back to Top

my ACCESS Science
Save articles, images, searches and more!

Trending in this Topic

Argillaceous rocks
Contact aureole
Topographic surveying and mapping
Seamount and guyot
Blueschist

Przeglądanie biografii imienne

Home About Articles **Biographies** Media For Faculty For Admins

Search AccessScience Advanced Search ? Browse Articles

I'm looking for... Search Select Topic

AccessScience > Biographies > A

Biographies

Biographies A-Z Biographies by Topic

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

A

Aalto, Alvar (Hugo Alvar Henrik) (1898-1976)
 Abbe, Ernst (1840-1905)
 Abel, Neils Henrik (1802-1829)
 Abercrombie, (Leslie) Patrick (1879-1957)
 Abetti, Giorgio (1882-1982)
 Abrikosov, Alexei Alexeyevich (1928-)
 Ackerman, James S(loss) (1919-)
 Ackerman, Nathan W(ard) (1909-1971)
 Adam (architects) (Adam)
 Adams, John Couch (1819-1892)
 Adams, Robert McC(ormick) (1926-)
 Adams, Walter Sydney (1876-1956)
 Addams, Jane (1860-1935)
 Addison, Thomas (1793-1860)
 Adleman, Leonard (1945-)
 Adler, Alfred (1870-1937)
 Adler, Dankmar (1844-1900)
 Adrian, Edgar Douglas (1889-1977)
 Agassiz, (Jean) Louis Rodolphe (1807-1873)
 Agnesi, Maria Gaetana (1718-1799)
 Agnon, Shmuel Yosef (1888-1970)
 Agre, Peter (1949-)

Nobel Prize Winners

This world-renowned prize recognizes outstanding contributions.

View winners in:

- Physics
- Chemistry
- Physiology or Medicine
- Economic Sciences
- Literature
- Peace

Fields Medal Winners

Awarded to young mathematicians, the Fields Medal is the world's most prestigious mathematics prize.

View Fields Medal Winners

Przeglądanie biografii tematycznie

The screenshot shows the ACCESS Science website interface. At the top is a navigation bar with links: Home, About, Articles, **Biographies**, Media, For Faculty, and For Admins. Below this is a search bar labeled 'Search AccessScience' with a text input field 'I'm looking for...', a 'Search' button, and a 'Browse Articles' link. A red arrow points from the title 'Przeglądanie biografii tematycznie' to the 'Biographies by Topic' link in the 'Biographies A-Z' section. The 'Biographies by Topic' section is highlighted with a red box. Below it, a red banner displays 'Topic: Agriculture, Forestry & Soils'. A dropdown menu for 'Select Topic' is open, showing a list of scientific fields. The 'Agriculture, Forestry & Soils' option is highlighted. To the right of the dropdown, a list of biographies is displayed, including names like Bell, Patrick, Bosch, Carl, Emma Lucy, George Washington, Mary Agnes, Nicolas-Joseph, Alice Catherine, on, Harry George, Obed, Mick, Cyrus Hall, Paul Hermann, Arthur George, thro, and y, Eli. A 'Back to Top' link is visible at the bottom right of the page.

Home About Articles **Biographies** Media For Faculty For Admins

Search AccessScience Advanced Search ? Browse Articles

I'm looking for... Search Select Topic

AccessScience > Biographies > Agriculture, Forestry & Soils

Biographies

Biographies A-Z **Biographies by Topic**

Topic:
Agriculture, Forestry & Soils

Select Topic

- Agriculture, Forestry & Soils
- Anthropology & Archeology
- Astronomy & Space Science
- Biology & Biomedicine
- Botany
- Chemistry
- Computing & Information Technology
- Earth Science
- Engineering & Materials
- Environmental Science
- Food Science & Technology
- Health Sciences
- Mathematics

Bell, Patrick - [Biography]
Bosch, Carl - [Biography]
Emma Lucy - [Biography]
George Washington - [Biography]
Mary Agnes - [Biography]
Nicolas-Joseph - [Biography]
Alice Catherine - [Biography]
on, Harry George - [Biography]
Obed - [Biography]
Mick, Cyrus Hall - [Biography]
Paul Hermann - [Biography]
Arthur George - [Biography]
thro - [Biography]
y, Eli - [Biography]

Back to Top

Przeglądanie multimedialnych : filmy wideo i animacje

The screenshot shows the ACCESS Science website interface. At the top, there is a navigation bar with links: Home, About, Articles, Biographies, Media (highlighted with a red box), For Faculty, and For Admins. Below the navigation bar is a search section with the text "Search AccessScience" and a search bar containing "I'm looking for...". To the right of the search bar is a "Search" button with a red arrow. Further right is a "Browse Articles" section with a "Select Topic" dropdown menu. Below the search section is a banner for "Media" with a background image of a hand reaching towards a globe. Under the "Media" banner, there are two tabs: "Videos & Animations" (highlighted with a red box) and "Image Galleries". Below the tabs, there is a red box with the text "Topic: Astronomy & Space Science". To the right of this box is a "my ACCESS Science" logo and a button that says "Save articles, images, searches and more!". Below the red box is a "Select Topic" dropdown menu with a list of topics: Astronomy & Space Science, Biology & Biomedicine, Botany, Chemistry, Computing & Information Technology, Earth Science, Engineering & Materials, and Environmental Science. The dropdown menu is also highlighted with a red box. To the right of the dropdown menu is a list of topics with their corresponding video/animation status: "Come" - [Video / Animation], "Earth's Orbit and Seasons" - [Video / Animation], "ion of the Solar System" - [Video / Animation], "s First Law" - [Video / Animation], "s Second Law" - [Video / Animation], "s Third Law" - [Video / Animation], "of the Moon" - [Video / Animation], and "ope Aberration" - [Video / Animation].

Przeglądanie multimedialnych: galerie zdjęć

The screenshot displays the AccessScience website interface. At the top, a navigation bar includes links for Home, About, Articles, Biographies, Media (highlighted with a red box), For Faculty, and For Admins. Below this is a search bar with the text "Search AccessScience" and a sub-label "Advanced Search ?". A search input field contains the placeholder "I'm looking for...", followed by a "Search" button with a red arrow. To the right of the search bar is a "Browse Articles" section with a "Select Topic" dropdown menu. The main content area features a blue header with the text "AccessScience > Media > Image Gallery" and "Image Galleries". Below this, a sub-navigation bar shows "Videos & Animations" and "Image Galleries" (highlighted with a red box). The main section is titled "A Collection of Topics That Might Interest You" and displays three image thumbnails, each with a right-pointing arrow button. The first thumbnail shows a model of the Wright Flyer with the caption "The 1903 Wright Flyer and Beyond". The second thumbnail is a microscopic image of cellular mitosis with the caption "Cellular Mitosis". The third thumbnail shows a model of the Wright Flyer in flight with the caption "Developing the Flyer".

Curriculum Maps – Programy nauczania

Curriculum Maps – zebrany i uszeregowany tematycznie materiał szkoleniowy (gotowe programy nauczania)

Przeglądanie bazy w/g gotowych materiałów dydaktycznych
- programy nauczania do użycia w prowadzeniu wykładów / kursów

The screenshot shows the ACCESS Science website interface. At the top, the logo 'ACCESS Science The Science Authority' is visible. A red arrow points from the 'For Faculty' link in the top navigation bar to the 'Curriculum Maps' link in the 'Jump to:' section. The 'For Faculty' section contains a welcome message from McGraw-Hill Education and a list of resources. The 'Curriculum Maps' link is highlighted with a red box. On the right side, there is a sidebar with a 'my ACCESS Science' section showing a user profile for Krzysztof Rudzinski.

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I'm looking for... Search By Topic

AccessScience > For Faculty

For Faculty

McGraw-Hill Education invites teaching faculty to integrate AccessScience into your science instruction. The resources on this page will assist you. Here you will find a wealth of Curriculum Maps, correlations to Next Generation Science Standards, and a handy search widget to embed in your web pages. You can also contact the editors to obtain answers to "Test Your Understanding" questions in AccessScience articles.

Jump to:

Curriculum Maps
Next Generation Science Standards
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Answers to "Test Your Understanding" Questions

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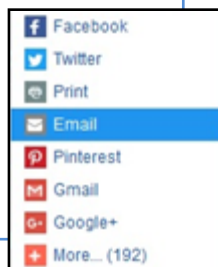
Właściwości konta użytkownika:

konto użytkownika w Access Science umożliwia:
przechowywanie

- wyników wyszukiwania
- zaznaczeń - cytatów
- zaznaczonych artykułów

Możliwość współdzielenia
z innymi użytkownikami
zaznaczonych-zapisanych
materiałów poprzez

- email
- media społecznościowe



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Saved items	Saved searches	My Account									
Krzysztof Rudzinski McGraw-Hill Education (organization) Sign out of MyAccessScience											
FILTER ITEMS ☒ All ☐ Article ☐ Biography ☐ Image	Select ALL NONE Selected: Delete Cite <table border="1"> <tbody> <tr> <td>☐</td> <td> Article Laser marking Laser marking is the process of directing a laser beam to etch the surface of a porous or nonporous ... 6 days ago </td> <td> CITE EMAIL DELETE </td> </tr> <tr> <td>☐</td> <td> Image Components of the galvanometric marking head. 6 days ago </td> <td> CITE DOWNLOAD EMAIL DELETE </td> </tr> <tr> <td>☐</td> <td> Biography Trumbore, Susan Benjamin Franklin Medal in Earth and Environmental Science 6 days ago </td> <td> CITE EMAIL DELETE </td> </tr> </tbody> </table>	☐	Article Laser marking Laser marking is the process of directing a laser beam to etch the surface of a porous or nonporous ... 6 days ago	CITE EMAIL DELETE	☐	Image Components of the galvanometric marking head. 6 days ago	CITE DOWNLOAD EMAIL DELETE	☐	Biography Trumbore, Susan Benjamin Franklin Medal in Earth and Environmental Science 6 days ago	CITE EMAIL DELETE	
☐	Article Laser marking Laser marking is the process of directing a laser beam to etch the surface of a porous or nonporous ... 6 days ago	CITE EMAIL DELETE									
☐	Image Components of the galvanometric marking head. 6 days ago	CITE DOWNLOAD EMAIL DELETE									
☐	Biography Trumbore, Susan Benjamin Franklin Medal in Earth and Environmental Science 6 days ago	CITE EMAIL DELETE									

Inne dodatkowe funkcjonalności

- zapisywanie artykułów
- zapisywanie cytatów
- wysyłanie artykułów mailem
- drukowanie artykułów
- wysyłanie artykułów mailem
- współdzielenie linku do artykułu

Article

Physics » Fluid mechanics » Aerodynamic force
Engineering & Materials » Aeronautical engineering » Aerodynamic force

Aerodynamic force

Article by:
Anderson, John D., Jr. National Air and Space Museum, Smithsonian Institution, Washington, DC;
Department of Aerospace Engineering, University of Maryland, College Park, Maryland.

Last reviewed: 2014
DOI: <https://doi.org/10.1036/1097-8542.012600>

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Content

- Lift and drag definitions
- Force coefficients
- Separation and stall
- Drag components
- Links to Primary Literature
- Additional Readings

Hide

The force exerted on a body whenever there is a relative velocity between the body and the air. There are only two basic sources of aerodynamic force: the pressure distribution and the frictional shear stress distribution exerted by the airflow on the body surface. The pressure exerted by the air at a point on the surface acts perpendicular to the surface at that point; and the shear stress, which is due to the frictional action of the air rubbing against the surface, acts tangentially to the surface at that point. The pressure and shear stress act at each point on the body surface, and hence the distribution of pressure and shear stress represent a distributed load over the surface. The net aerodynamic force on the body is due to the net imbalance between these distributed loads as they are summed (integrated) over the entire surface. See also: **Boundary-layer flow; Wind stress**

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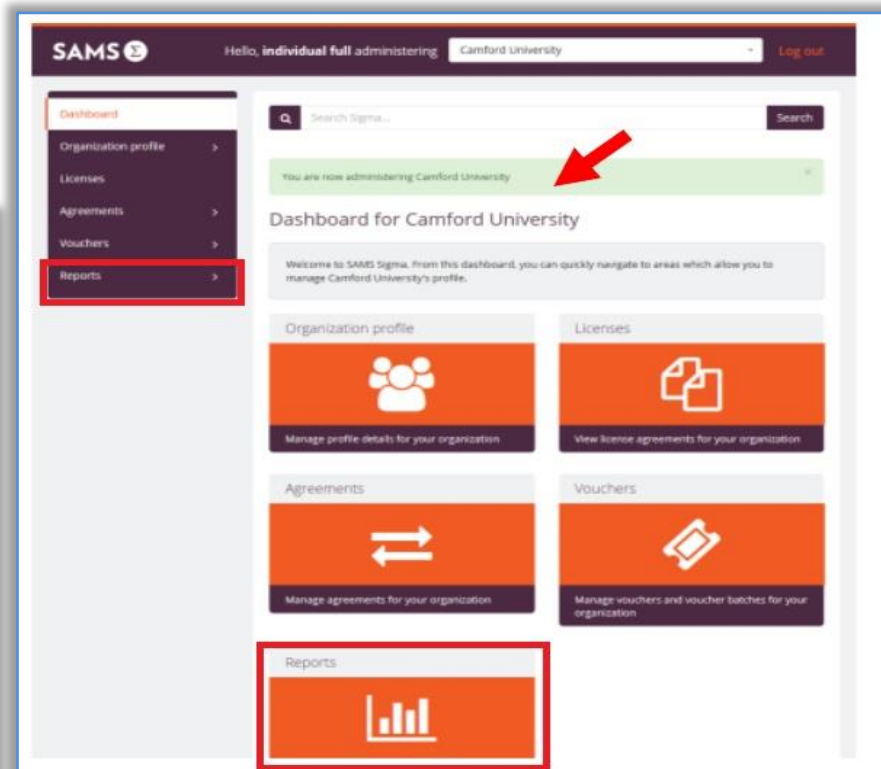
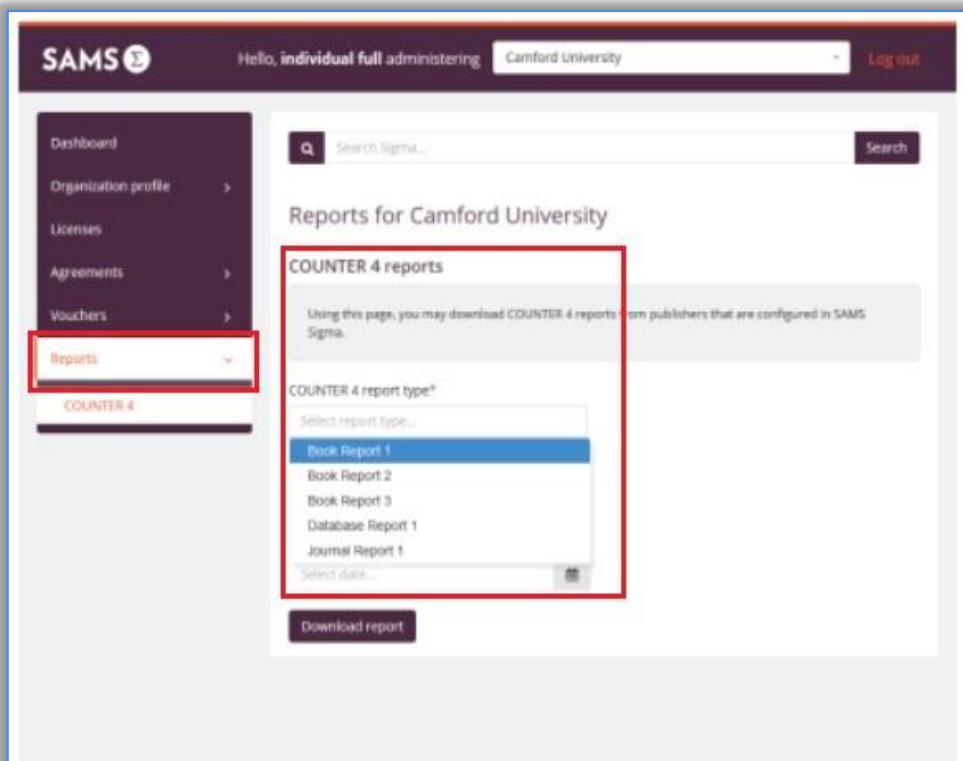
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Rozbudowane i szczegółowe statystyki wykorzystania platformy przez użytkowników dostępne poprzez portal SAMS Sigma

Statystyki:

- ilości wyszukiwania
- wejść
- zapisanych danych





URZĄDZENIA MOBILNE



ANDROID

- LAPTOPY
- SMARTFONY
- TABLETY



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