

Social media for scientists (err, astronomers)*

[mostly a lurker's perspective]

Michael Cushing

University of Toledo

 [@mccushing](https://twitter.com/mccushing)

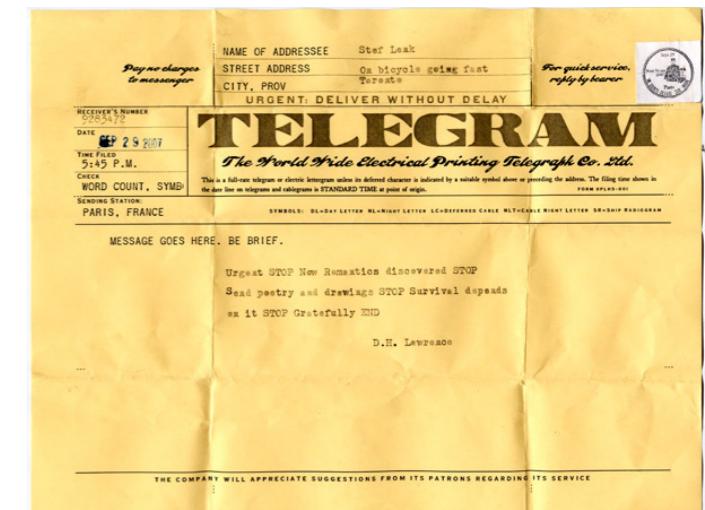
*much based on a talk by Kelle Cruz (AMNH)

Two caveat emptors

1. I may be the ~best person to give this talk in this department, but I am not the ~best person to give this talk, i.e. it is both biased and incomplete.
2. When I accepted invitation, I assumed I would be giving the talk to astronomers, i.e. I don't know much about the social media landscape for physicists.

Communication is fundamental to science

How do we communicate? Historically...



to this list we can now add

so·cial me·di·a

noun

noun: **social media**; plural noun: **social medias**

websites and applications that enable users to create and share content or to participate in social networking.

You have lots of choices

- **Blogs:** longer form content that can be relevant on long timescales
- **Wikis:** crowd sourced compilations of information
- **Facebook:** discussions that provide insight into the professional community. Get questions answered by the community.
- **Twitter:** “Brief” realtime discussions and tidbits. Get your questions answered by the community. Build your mentor network.
- **Instagram/Tumblr:** they exist (and I know nothing about them).

Blogs

You can read them (easy) and/or you can write them (hard).

- Learn about other science or even your science
- Pick up tips and tricks
- Hone your writing skills
- Become “known” in your field

What are you Going to do with That? Perspectives on Life After a Degree in Physics

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Sunday, March 29, 2015

Kate Marvel: Physicist, Climate Scientist Part II



The California drought: does the climate change 'signal' stand out above the weather 'noise'? [Figure credit: [Jeff Master's Wunderblog](#)]

In the second half of this interview with Dr. Kate Marvel of the NASA Goddard Institute for Space Studies, we discuss her field of climate science. We cover uncertainty, the hunt for signal in noisy data, and the joy of seeing physics work. In her case

that joy is a mixed blessing because her data are backing up models that can, at times, make somewhat depressing predictions. All views expressed here are her own.

Lloyd Knox



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Contributors

[Lloyd Knox](#) (Interviewer/Writer)
[Angela Parnay](#) (Transcriber/Editor)

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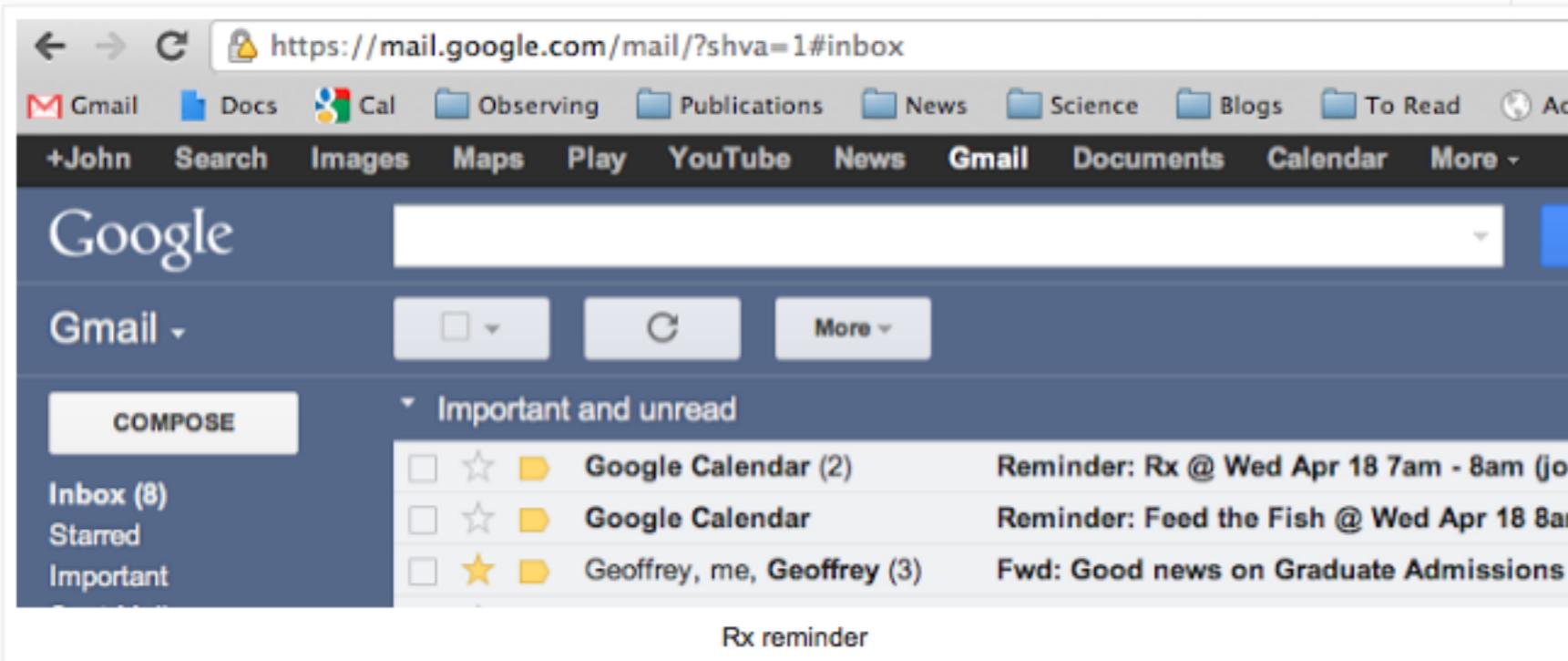
[Kate Marvel: Physicist, Climate Scientist Part II](#)

Mahalo.ne.Trash

Updates on astronomy and parenting in paradise...er, Pasadena. Wait, make that Cambridge, MA.

Wednesday, April 18, 2012

Performance-enhancing drugs



A screenshot of a Gmail inbox. The URL in the address bar is <https://mail.google.com/mail/?shva=1#inbox>. The inbox contains 8 messages. The first three are from "Google Calendar" and the last one is from "Geoffrey, me, Geoffrey". The subject of the last message is "Fwd: Good news on Graduate Admissions". A reminder for "Rx @ Wed Apr 18 7am - 8am" is also visible.

About two years ago I was suffering from a debilitating and possibly deadly illness. Sadly, I was suffering because I was refusing to get treatment. I had seen others get this illness treated with medication and some of them had suffered from bad side effects, which scared me. I convinced myself that I could beat my illness without medical attention. But my condition worsened and it was affecting everyone around me.

If I told you that condition were cancer or Parkinson's or some other obviously physical ailment, I'm



What does the title mean?

When I first visited Hawaii, I noticed that the word "Mahalo" is used frequently, quite often printed on the swinging doors of trash cans. However, it turns out that "mahalo" does not mean "trash" or "garbage." It means, "thank you." I was mistaken about this subtle point for only about an hour.

".ne." is a form of nerd-speak for "not equal to."

Latest Research

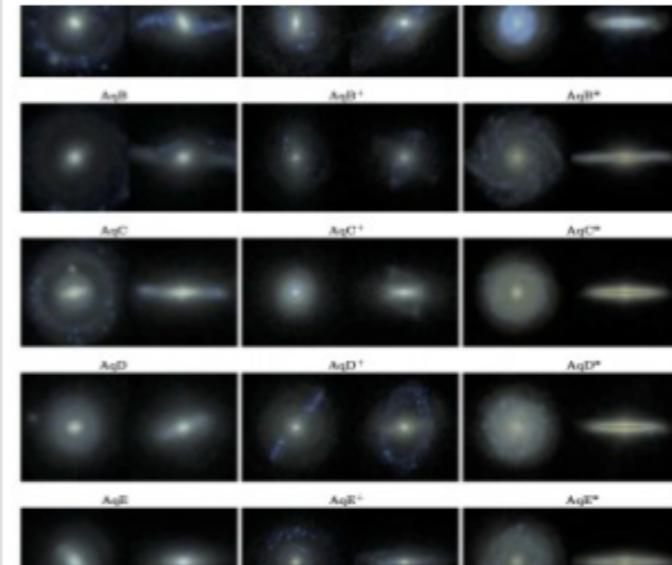
The astro-ph Reader's Digest



Digging into the Core: Dark Matter and Dwarf Galaxies

by Andrew Emerick | Jul 14, 2015

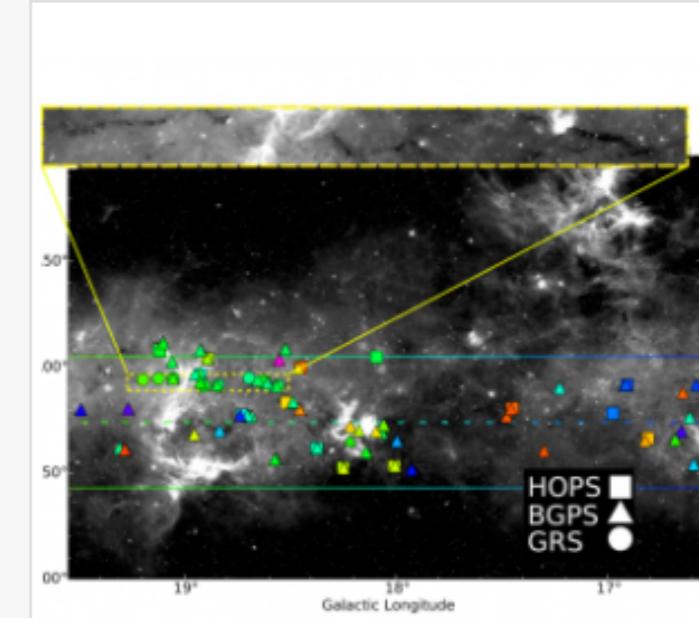
Dark matter dominated dwarf spheroidal galaxies are some of the best places to test



Observing the Simulated Universe

by Ben Cook | Jul 8, 2015

The authors of today's paper created simulated galaxies, for which true properties are known.



Mapping the Milky Way

by Caroline Huang | Jul 3, 2015

How many spiral arms does the Milky Way have? You might be surprised to learn that

Why should I use Authorea to write my papers?

by Guest on July 13, 2015

Matteo Cantiello is a theoretical astrophysicist at the Kavli Institute for Theoretical Physics and Authorea's Chief Scientist.

I am aware that a while back a lot of astronomers have tried out writing their research articles on Authorea, a web-based collaborative writing platform. Some were disappointed by the lack of certain advanced LaTeX features (e.g., [deluxetables](#), [now supported](#)). You were disappointed, you told us why, and we just implemented some big changes to make you happy. Authorea now has a "[Power LaTeX user](#)" mode which supports a much much larger subset of LaTeX. Essentially everything. And unlike some services such as [ScribTeX](#) and [WriteLaTeX](#) (previously reviewed on Astrobetter), all your LaTeX renders both to PDF and to HTML (i.e., the web).

So, why should you give Authorea a spin and start using it daily for your research? It's a good question. Here some highlights that might guide that decision.

1. With Authorea, your paper is accessible from any computer, anywhere in the world.
2. You can write your paper from your browser, no installation of TeX required.
3. You can write in [LaTeX](#) or in markdown. Advanced LaTeX and tables are now supported.
4. Collaboration is made easy. No need for endless emails threads with multiple draft revisions.
5. Every Authorea paper is a Git repo, version controlled. Again, no installations required.

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AstroBetter

Tips and Tricks for Professional Astronomers

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(Cached)



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Computing Mac Setup

- [Setup Guide for Mac Astronomers](#)
- [Mac Apps - Top apps for boosting astronomy productivity](#)
- [Mac Care and Maintenance - Advice for keeping your Mac operating well.](#)
- [iPhone and iPad Apps - related blog posts](#)
 - [Android Apps](#)
- [Setup User Accounts - For those who integrate into a larger network \(beyond just ssh and such\)](#)
- [Scisoft - quick way to install many data reduction packages](#)
- [Running Windows on OS X](#)
- [Computing - Other useful computing resources.](#)

Tips and Tricks (by application)

- [Computing - compilation of tutorials and activities for teaching/learning](#)
- [IDL - Installation Tips and Common IDL problems](#)
- [Python - see also related blog posts](#)

Latest Changes

1. [Rumor Mill Faculty-Staff](#)
 2. [Astronomers on Twitter](#)
 3. [Astronomy Organizations on Facebook](#)
 4. [Oversubscription Rates](#)
 5. [Wiki Home](#)
 6. [Rumor Mill](#)
 7. [Astro 101 Resources](#)
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- [...more](#)



Astronomers
Closed Group

Joined Share Notifications

Discussion

Members

Events

Photos

Files

Search this group



Don't see what
you want?
Create a group!

Topical Facebook Groups

- [Astronomers](#) – Closed group for professional astronomers
- [Professional Astronomy](#) – A second, closed group for professional astronomy. Slightly different rules of engagement.
- [Astrostatistics](#) – A place to talk about astrostatistics, statistics, data-mining, visualization, and programming in all languages.
- [Equity & Inclusion in Physics & Astronomy](#) – Closed group for the physics and astronomy practitioners to discuss issues of equity & inclusion in our fields, such as racism, sexism, and many other -isms/-phobias
- [LGBTIQ Physicists, Astrophysicists & Astronomers and Allies](#) – Closed group for Lesbian, Gay, Bisexual, Transgender, Intersex, Questioning (LGBT LGBTIQ) Physicists, Astrophysicists, and Astronomers and Allies.
- [Low-Mass Stars and Brown Dwarfs](#) – Group for professional astronomers to discuss these objects
- [Mystery Spectra](#) – Group for professional astronomers to discuss spectra
- [Python users in Astronomy](#)
- [Time Domain Astronomy](#) – Public group for relevant news and info about time-domain astronomy.
- [Pulsars](#) – Closed group for pulsar enthusiasts.
- [Active Galactic Nuclei](#) – Closed group for discussion of AGN related topics
- [Variable Star Astronomy](#) – Closed group. Discussion of variable star astronomy.
- [Cataclysmic Variables](#) – Cataclysmic Variables, accretion and the like. Closed group.
- [Massive Stars](#) – Closed group for discussion of massive stars related topics.
- [Circumstellar Disks and Planet Formation](#) – Closed group for discussion of planet system formation, accretion, disks, etc.
- [Molecules in Galaxies](#) – Closed group. Molecular astrophysics and star formation in extragalactic environments.
- [IAU Commission 154](#) – Particularly for discussion of optical interferometry. Takes its name from the (now-closed) IAU commission.
- [Astronomer, Woman, Mom](#) – Closed group for discussion of balancing research, academic and family life, particularly dedicated to women and families.
- [High Energy Astrophysics Picture of the Week](#) – Public group for posting pretty pictures relating to high-energy astrophysics.
- [XSPEC](#) – Public group for topics related to XSPEC, the beloved X-ray spectral fitting program.
- [GALFIT News and Discussion Forum](#) – Closed group for enthusiasts of GALFIT, the galaxy fitting program.
- [Python Users in Astronomy](#) – Closed group. Discussion related to Python in astronomy.
- [Galaxy Zoo](#) – Community Page for the famed crowd-sourcing project and related topics.
- [Astronomical Transients](#) – Public group for things that go bump in the night.
- [Astrobiology](#) – Closed group for discussion of astrobiology.
- [Exoplanet Imaging](#) – Public group. Discussion of topics related to imaging of exoplanets and exoplanetary systems.
- [Astrostatistics](#) – Closed group. Discussion of statistics, their use and misuse, and routines/packages.
- [Jobs for Astronomers](#) – Closed group for connecting with job seekers both in and outside of traditional academic astronomy paths.

Low-Mass Stars and Brown Dwarfs

Closed Group

Joined

Share

Notifications

...



Jonathan Gagné

June 24 at 10:54pm · Edited

Any one knows of a simple relation from " $v \sin i$ " to "width of convolution profile" that would allow me to artificially broaden the spectrum of a slowly rotating star to simulate what it would look like if it were rotating at, say, $v \sin i \sim 25$ km/s ? Thanks !

Like · Comment



Michael Cushing Take a look at the book by Grey on stellar photospheres. I believe he derives it from first principles (if memory serves). There is also a routine called add_rotation (used in SpeXtool so it is in there) that implements it in IDL.

June 24 at 11:21pm · Edited · Like · 3



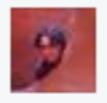
Jonathan Gagné Oh my god, thank you ! And there I realize there's an IDL program after solving so many integrals :

June 24 at 11:02pm · Edited · Like



Michael Cushing Also, be careful if you are working with data as it already has the instrument profile in there so it isn't as simple as if the spectrum is a bunch of delta functions (i.e. a model).

June 24 at 11:03pm · Like · 1



Jonathan Gagné Yes, thanks !

June 24 at 11:03pm · Like



Jonathan Gagné That worked like a charm, thanks again Michael !

June 25 at 12:01am · Unlike · 2



Write a comment...





Trent Dupuy

March 24

We have measured individual dynamical masses for a new J-band flip binary SD1052+44 (L6.5+T1.5). The component brighter in J band is indeed less massive, in fact surprisingly so. With component masses of 49 ± 3 Mjup and 39 ± 3 Mjup, but luminosities only $\approx 15\%$ different, this system points to a very shallow mass-luminosity relation in the L/T transition. This can be interpreted as a consequence of cloud clearing. "Hybrid" evolutionary tracks from Saumon & Marley (2008) predict ... See More

[1503.06212] The Mass-Luminosity Relation in the L/T Transition: Individual Dynamical Masses for...

ARXIV.ORG

Unlike · Comment · Share

Like You, Mark Marley, Katelyn Allers, Eric Mamajek and 36 others like this.



Adam Burgasser "the first observational support that cloud dispersal plays a significant role in the luminosity evolution of substellar objects" hmm, obviously great stuff with measured masses, but you really could find no work that has measured luminosities across the L/T transition over the past 10 years?

March 25 at 3:14am · Like



Trent Dupuy I think the key word here is "evolution." Work by you and others certainly inspired my great interest in the L/T transition, including work resulting in the discovery of J-band flip binaries. But observational tests of the evolution were restricted ... See More

March 25 at 3:58am · Like



Adam Burgasser got it. but we don't know the age of this system, right? The masses are empirical but the ages are model dependent, so this is a semi-empirical result, yes?

March 25 at 3:19pm · Like · Like 1



Trent Dupuy The masses and luminosities are empirical, so the slope of the mass-luminosity relation is fully empirical, although we would have to consult models to say what actual age this measurement corresponds to. Our test of whether models can reproduce thes... See More

March 31 at 3:08am · Like · Like 2



Adam Burgasser OK, my own opinion (not necessary reflecting others' views, since I'm being nitpicky) is that a snapshot in time does not tell us evolution per se. But the mass ratio is definitely interesting, much more different masses than you'd expect from a "fast..." See More

April 2 at 4:29am · Like · Like 2



John Gizis Why is the brown dwarf community more fun than other scientific communities? We have words like "flippiness."

April 2 at 10:33am · Like · Like 6



Write a comment...





Follow/contribute to meetings or “events”



John Gizis @johngizis
thank you to all the #IAUS314 tweeters!

5/15/15



Eric Mamajek @EricMamajek
#IAUS314 Liu: 4. Will we be able to robust gas and dust disk masses? 5. Will we have a consensus defn of a "planet" by 2025? (most say NO)

5/15/15



Eric Mamajek @EricMamajek
#IAUS314 Liu: 3. Will we have a complete predictive theory of how stars get masses? (only Chabrier votes yes!).

5/15/15



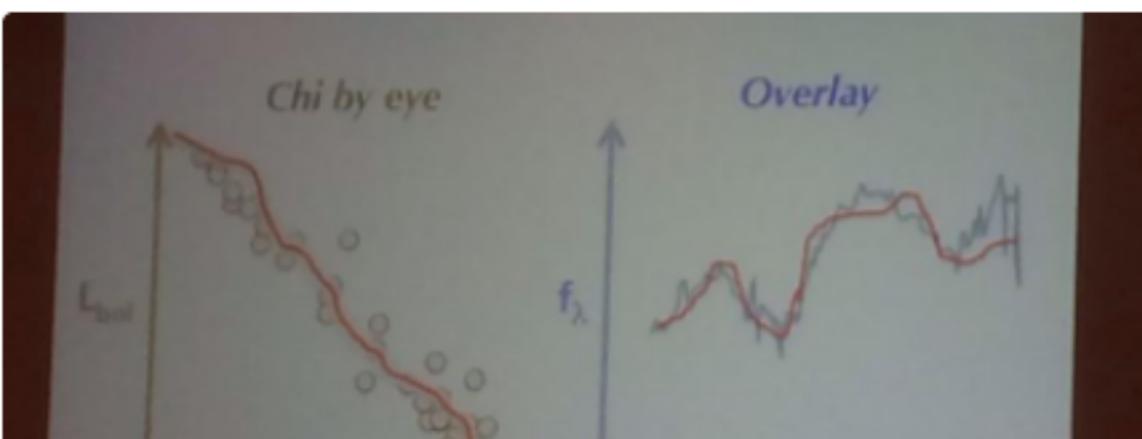
Matthew Kenworthy @mattkenworthy
"Eric has opinions" Indeed.... #IAUS314

5/15/15



Taisiya Kopytova @duisiya
M.Liu's conference summary: Stop comparing models to data, start testing models with data! #IAUS314

5/15/15



CNN iReport @cnnireport

We obviously can't see it from Earth, but the #PlutoFlyby has us excited about space photos. Show us your best. bit.ly/1O6Hddv

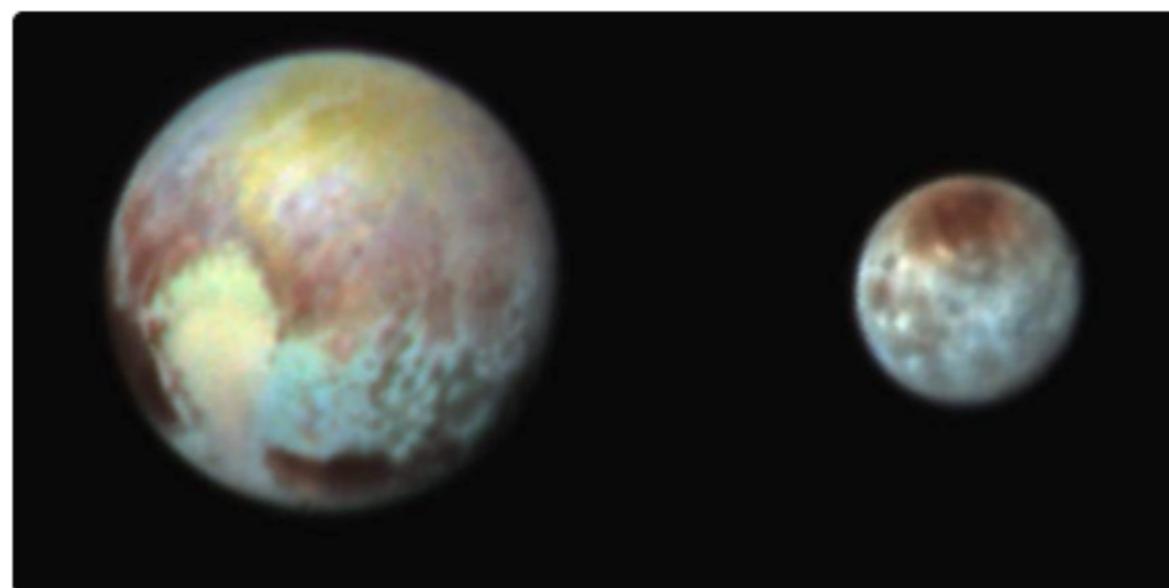
3m



Science News @ScienceNews

Waiting (im)patiently to see #Pluto like we never have before. A few more hours: ow.ly/PEfMW #plutoflyby

3m



Chris Sebby @ChrisSebby

Here's a song that is probably appropriate to celebrate the #plutoflyby... fb.me/4qxLxhU7B

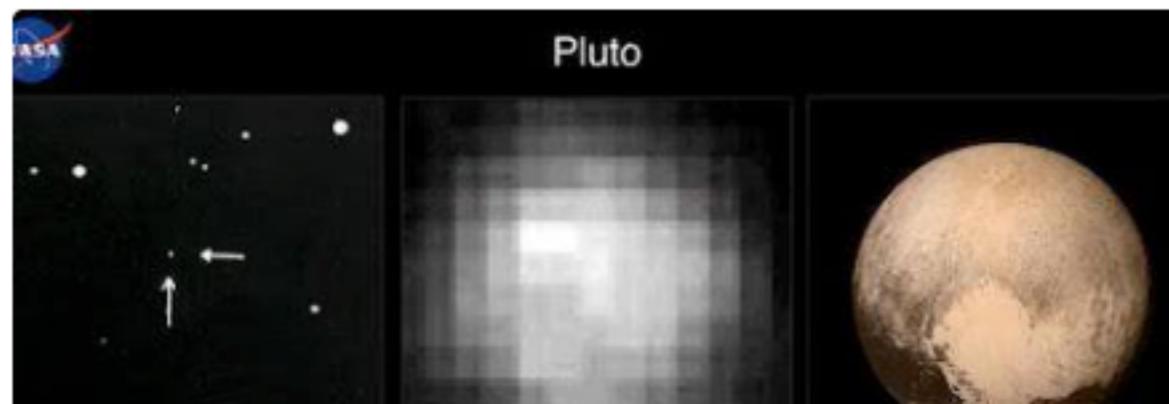
3m



Tony Vengrove @Tony_Vengrove

Progress and #Innovation captured in one image. Amazing accomplishment! #PlutoFlyby @NASA

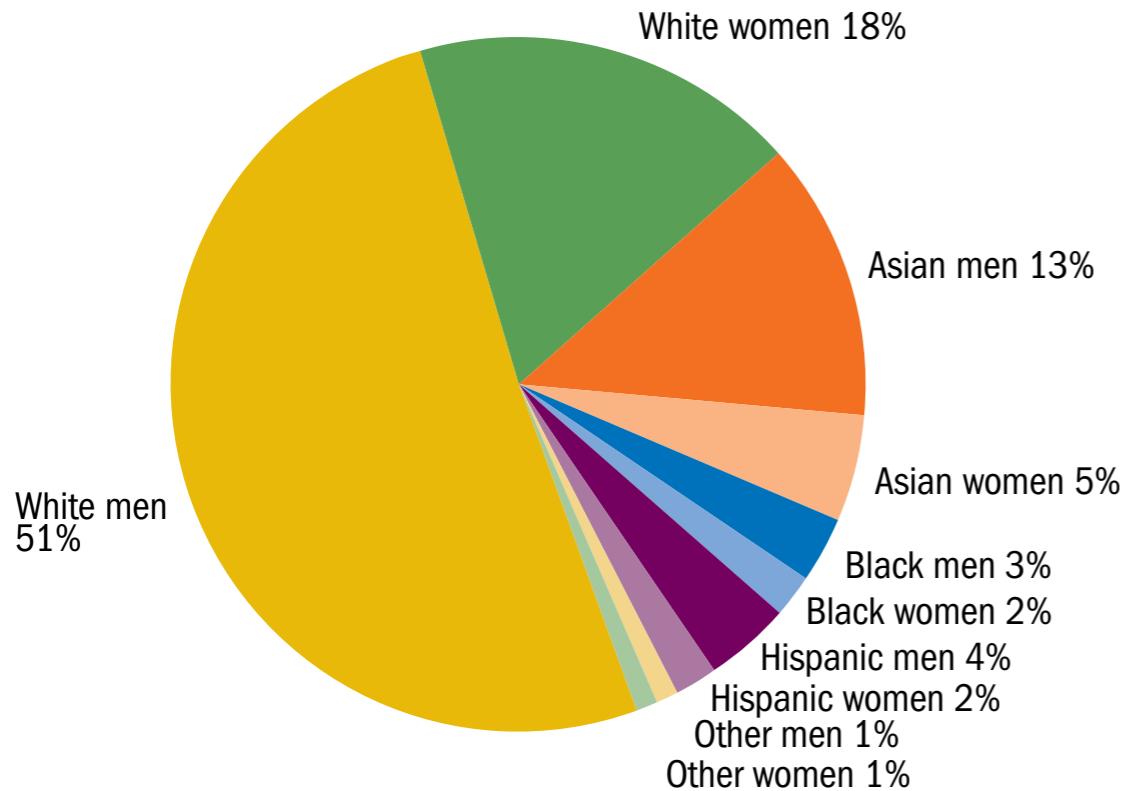
3m





Potentially more voices like yours (or not like yours!)

Scientists and engineers working in science and engineering occupations: 2010



NOTE: Hispanic may be any race. Other includes American Indian or Alaska Native, Native Hawaiian or Other Pacific Islander, and multiple race.

SOURCE: *Women, Minorities, and Persons with Disabilities in Science and Engineering*: www.nsf.gov/statistics/wmpd/.



Aletha R. Cherry @sandalsnpearls

Did not know this was a hashtag!! Love it! #BlackandSTEM

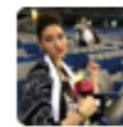
14h



y helo thar mr kim @shutuphimchan

Great essay on respecting #blackandstem scientists as...well, scientists first, and not your free diversity lecturer twitter.com/ibjiyongi/stat...

14h



Chanda (王婵娟) @IBJIYONGI

My latest blog entry: The #Diversity Racket medium.com/@chanda/the-di... #blackandstem #womeninstem #stem

14h



In The Know @Intheknowshow

Taking these opportunities all the way past the# moon to #pluto! #blackandSTEM #womaninSTEM #science #media

16h

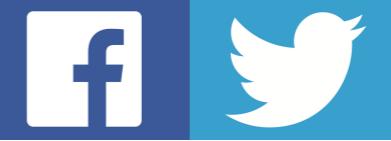


DNLee @DNLee5

Hood Smart: The Urban STEMulus Project - Check out these

19h

Facebook and Twitter



- Why do you want to use them?
Professional versus personal?
Anything you put on the internet
stays on the internet.



Addiction prevention: set time limits or it is all you will do.

How to proceed intelligently

- **Be clear about your goals**

Public education, self education, professional networking, social networking?

- **Know your audience**

Public, students, scientists, friends

- **Think about the future**

Imagine a job interview 10 years from now

- **Lurk first, then participate gradually**

Learn the unwritten rules/vocabulary to avoid conflicts