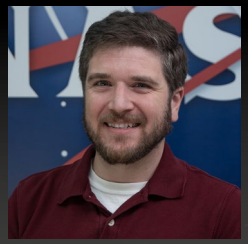
NASA's Exoplanet Modeling & Analysis Center

Presented by Eric D. Lopez
(NASA Goddard)

Background Image Credit:
NASA Ames/JPL-Caltech/T. Pyle

Meet the Team

Eric Lopez
Co-Lead



Joe Renaud
Co-Lead

Avi Mandell
Founder & Advisor

Dylan Cristy
Front-End Developer

Mike Moore
Back-End Developer

Anmol Desai
Post-Bac Researcher

Celeste Hagee
Post-Bac Researcher

… and many alumni including former post-bacs now at U. Chicago, U. Kansas; U. Padova; IPAC; & UNLV

So, what is EMAC?

*NASA Goddard's **E**xoplanet **M**odeling and **A**nalysis **C**enter*

- Searchable repository for exoplanet science codes and resources
- Networking & support to scientists & model developers
- First stop for finding codes, intermodel comparisons, and model visualization

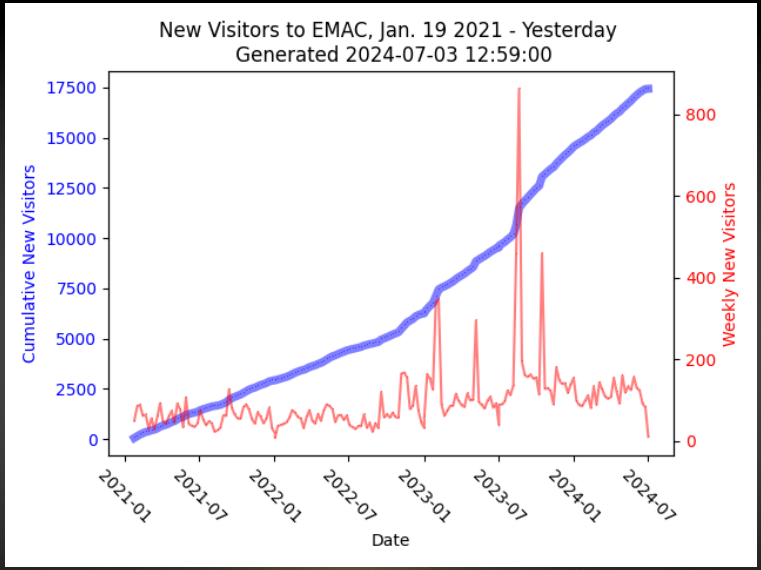
EMAC and its team are supported by…
NASA Goddard's Sellers' Exoplanet Environments Collaboration
NASA Sciences and Exploration Directorate
NASA Planetary Science & Astrophysics Divisions

EMAC's Growth

Soft Launched ~2018

100s of weekly new visitors

304 Published Resources!



1st EMAC Developer's Workshop in Spring 2023

>300 Registrants & >40 talks

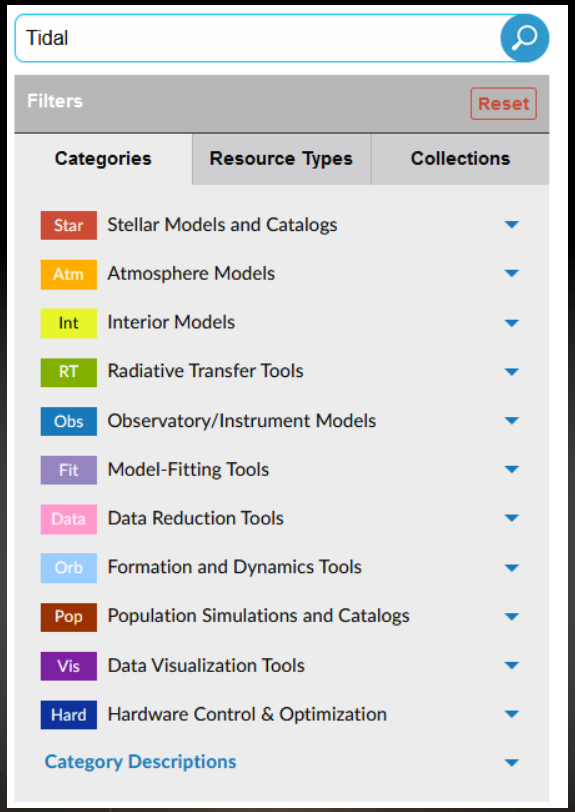
Talks on EMAC's YouTube:
youtube.com/@NASA_EMAC

Live Demo Time!

Because these always go well…

The Demo didn’t work :(

Search for Resources



TidalPy: Software Toolbox for Estimating Tidal Heating and Dynamics in Solar System Moons and Exoplanets

EMAC 2207-034

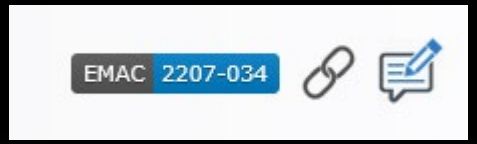
Joe Renaud Orb Int

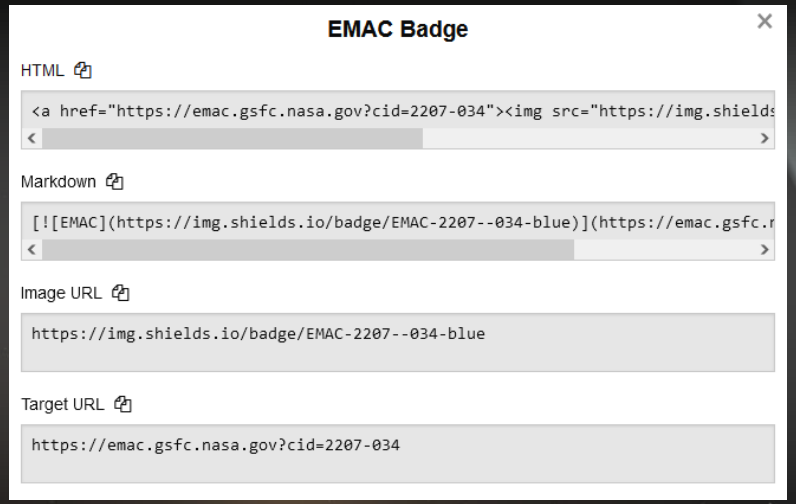
TidalPy is an open-source software suite designed to assist researchers in the semi-analytic calculation of tidal dissipation and subsequent orbit-spin evolution for rocky and icy worlds. TidalPy serves as simple to install (cross-platform) and, hopefully, simple to use package that users can pick up and hit the ground running to answer basic questions about tidal dynamics.

Last updated: Dec. 10, 2021
Code Language(s): Python3

About Discuss

Link to Extras





Code

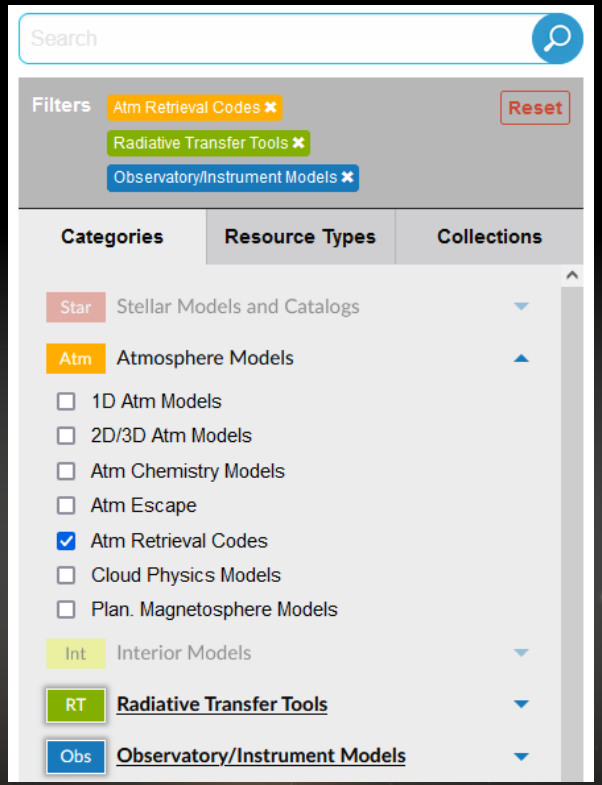
ADS: 109 ASCL

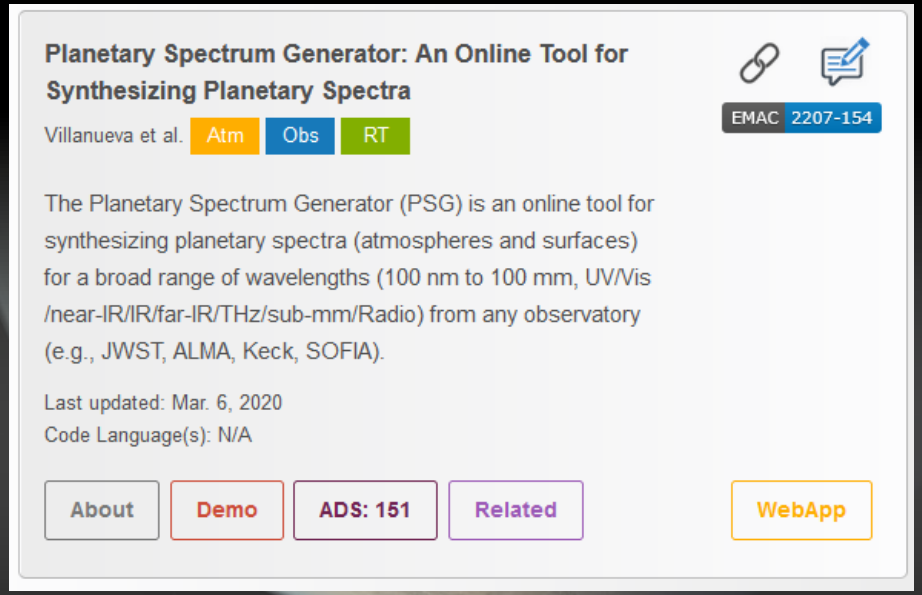
About

Demo

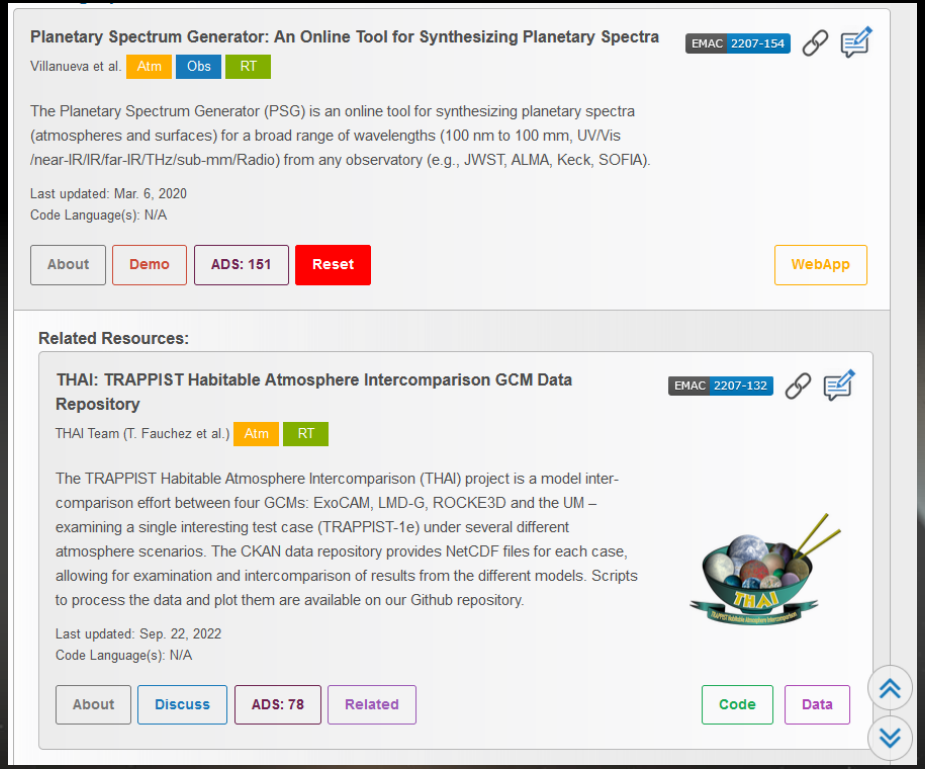
Jupyter

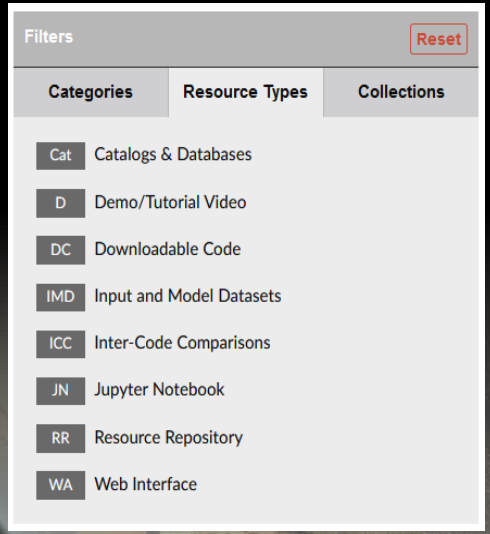
Search by Category

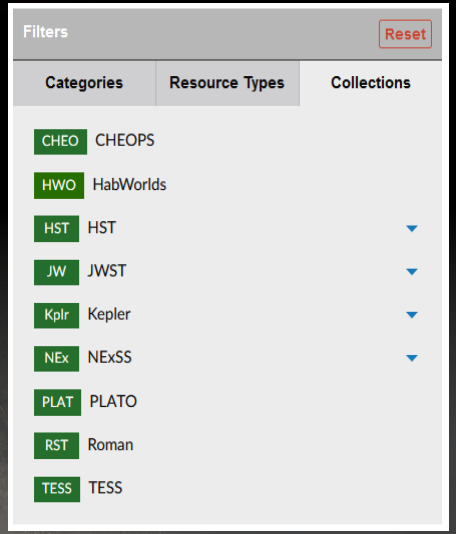


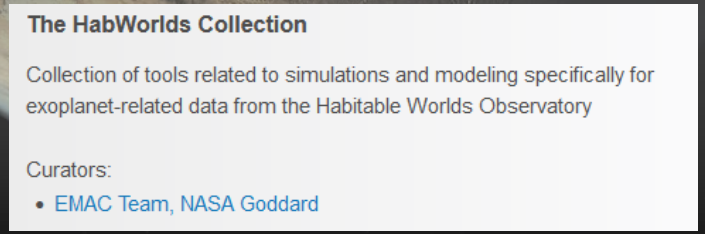


Search by Collections & Types









Submit & Subscribe

Home | Submit a Resource | Subscribe | FAQ | Our Team | News | Seminars | For Developers

Resource Submission

This page allows developers to submit their model, tool, or resource for inclusion within EMAC. Use the form below to let us know about your tool, including it's name, a brief description, the developers, what categories the resource falls under, whether you want the resource hosted on EMAC, and any relevant links, images, or credits that you'd like us to include.

After you submit your resource, a member of our team will be in touch to discuss a plan for including it in EMAC.

NOTE: All web-based submissions are expected to conform to W3C standards, must pass the W3C Markup and CSS validation services, and must support all major cross-platform browsers (sc. Chrome, Firefox, and Safari).

Your first name*

Please provide your first name

Your last name

Please provide your last name

Your email*

Please provide an email address at which the EMAC team can contact you

Provide Additional Resource Details (click to expand)

Select Resource's Science Categories (click to expand)

Provide Resource Related Web Links (click to expand)

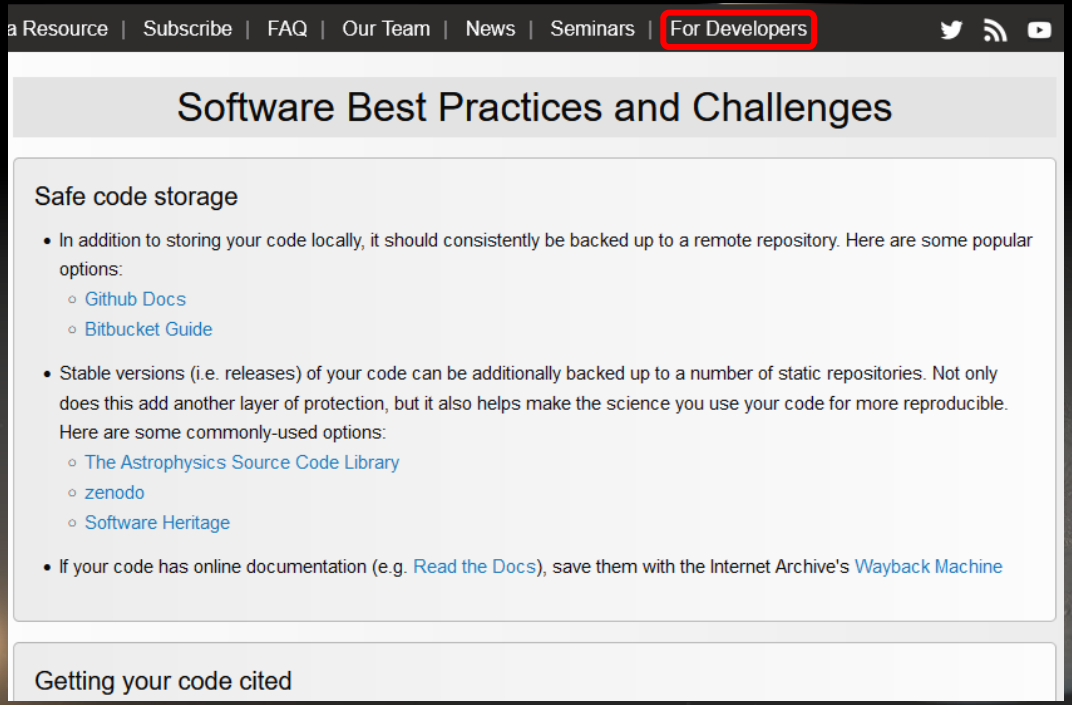
Your email*

Please provide an email address at which EMAC can alert you.

Categories (check all that apply)

- ☐ Stellar Models and Catalogs
  - ☐ Host Star Catalogs
  - ☐ Stellar Models and Spectra
- ☐ Atmosphere Models
  - ☐ 1D Atm Models
  - ☐ 2D/3D Atm Models
  - ☐ Atm Chemistry Models
  - ☐ Atm Escape
  - ☐ Atm Retrieval Codes
  - ☐ Cloud Physics Models
  - ☐ Plan. Magnetosphere Models

Developer Tips & Tricks



NASA's EMAC

emac.gsfc.nasa.gov

DASH Conference | October 15th, 2024