2018 Sagan Summer Workshop

Introduction to Hands-on Sessions

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Schedule

- **Monday 2:30-5:30 pm:**
  - Introductory talks on EXOFASTv2 and VESPA
  - Hands-on Session on TESS (talk, group discussion, reports of findings)

  ⟹ Please sign up to work on either an EXOFASTv2 or a VESPA group project by the end of the afternoon (no specific project yet) – 60 people limit per software package.
- **Tuesday and Wednesday 3:30-5:30 pm:**
  - Hands-on session on EXOFASTv2 and VESPA:
    participants split into two groups:
    - ❖ if you signed up for an EXOFASTv2 project:
      attend EXOFASTv2 session on Tuesday, VESPA on Wednesday
    - ❖ if you signed up for a VESPA project:
      attend VESPA session on Tuesday, EXOFASTv2 on Wednesday
  - Sign up for a specific project (at most 10 people per project) on Tuesday afternoon.
  - Tutorial/walk-through; on Tuesday, if time permits, start on group projects
- **Thursday 1:45-5:30 pm:**
  - Work on EXOFASTv2 and VESPA group projects
  - Prepare presentations for group projects
- **Friday 2:30-4:30 pm:**
  Group projects presentations

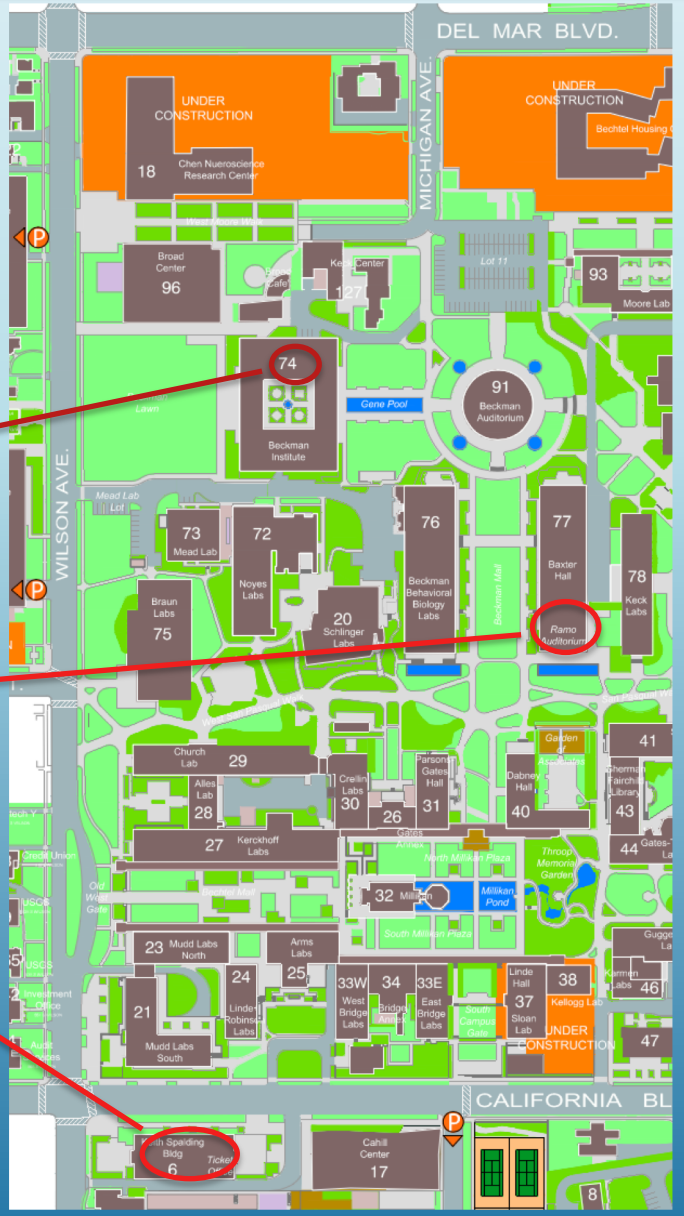
Logistics

- **EXOFASTv2:** Baxter Lecture Hall
  (2nd floor of Baxter Hall)
- **VESPA:** Keith Spalding building,
  4th floor conference room

We are here
(Beckman Institute
Auditorium)

Baxter Lecture Hall:
EXOFASTv2

Keith Spalding building:
VESPA



Software

- **EXOFASTv2 – developed by Jason Eastman**
  - written in IDL
  - fits transit photometry and radial velocity data to derive exoplanet properties

hands-on session leaders:
Jason Eastman, Joey Rodriguez

- **VESPA – developed by Tim Morton**
  - written in Python
  - calculates the false positives probabilities for transit signals

hands-on session leaders:
Tim Morton, Juliette Becker, Andrew Vanderburg

To run the software:

- Both EXOFASTv2 and VESPA are installed on the cloud (Amazon Web Services, or AWS).
- Your received your AWS login information when you registered.
- To log in to the AWS instance and run the software, you need an **xterm**:
  - macOS has the Terminal app. You may also have to install Xquartz.
  - On Windows systems should install cygwin to get a terminal emulator and an X server.
- You will also need an ethernet port and, if needed, an ethernet adapter for the VESPA session (we will provide the ethernet cable).
  The EXOFASTv2 session will use wireless internet connections.

Projects

- You will learn how to run EXOFASTv2 and VESPA on Tuesday or Wednesday.
- Group Projects:
  - You are encouraged to sign up for group projects on Monday afternoon (choose which software you would like to use).

    → On Tuesday you will choose one project from 6 EXOFASTv2 and 3 VESPA projects.
  - You will work on the group project on Thursday afternoon.
  - Also on Thursday afternoon your group should prepare a brief (10 min) presentation with your results:
    - *Explain what questions you were asked to address*
    - *What data did you use, what steps did you complete?*
    - *What are your main findings?*
  - The documentation for the EXOFASTv2 and VESPA group projects lists several more projects that you could try at a later time (after installing EXOFASTv2 or VESPA on your own computer – the software packages are available on github).
- Please note that the AWS instances will be turned off on Friday at 5 pm – if you want to keep any files, scp them to your own computer.