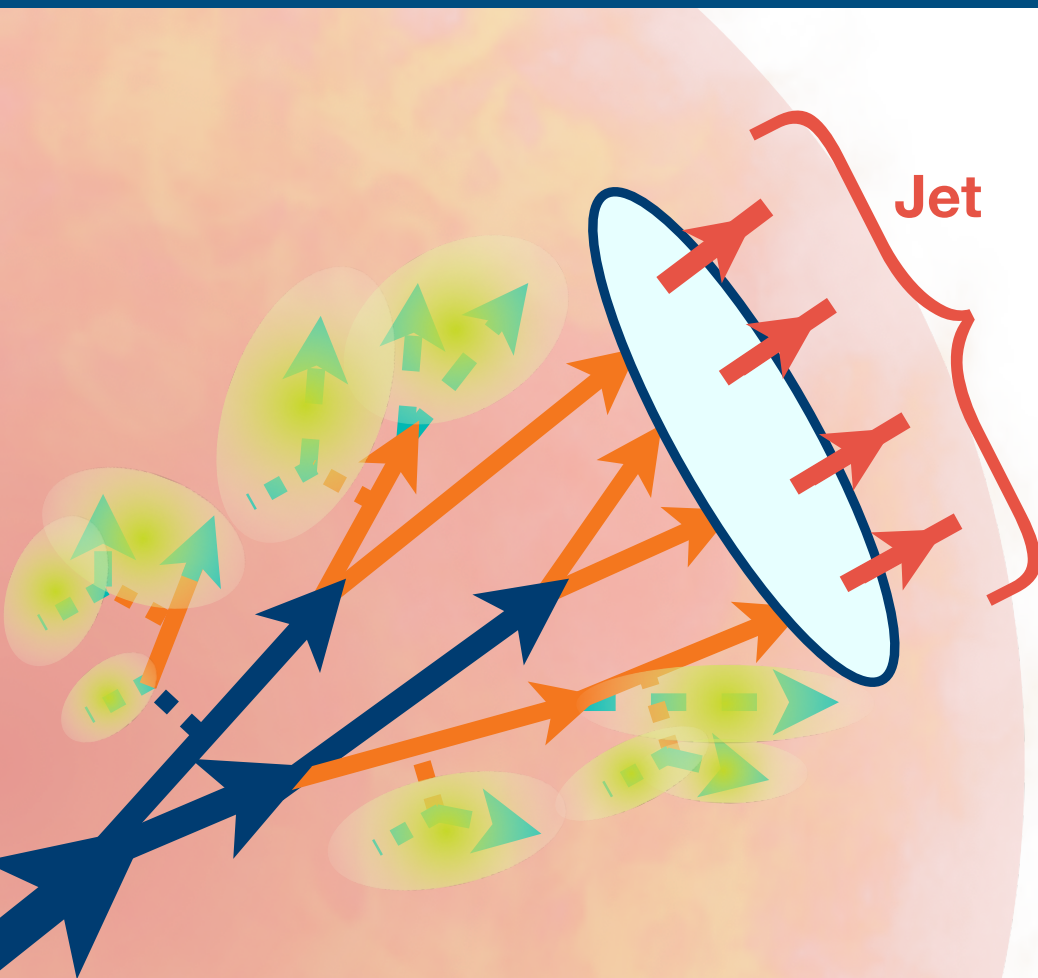


The JETSCAPE Framework

Hands-on session: Follow-up

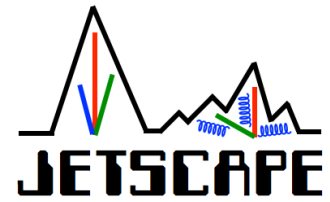
James Mulligan
(UC Berkeley / LBNL)

JETSCAPE Online School
July 14 2020



Ask questions in slack channel: **#software-mulligan**

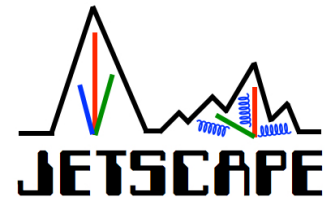
Homework



In preparation for the physics sessions, please complete the following two slides before tomorrow's session

This is crucial for the upcoming physics sessions

Update JETSCAPE



There have been a couple recent updates — let's get the latest version of JETSCAPE

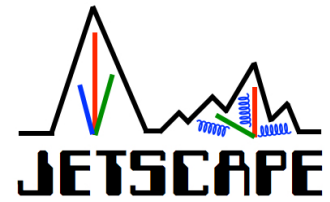
[outside container]

```
cd JETSCAPE  
git pull
```

Note: You may need a github account — which is highly recommended.
If you haven't set this up, you can also do:

```
rm -r JETSCAPE  
git clone https://github.com/JETSCAPE/JETSCAPE.git
```

Update JETSCAPE



Check that you have the latest release

[Outside docker container]

```
Jamess-MBP:JETSCAPE jamesmulligan$ pwd
/Users/jamesmulligan/jetscape-docker/JETSCAPE
Jamess-MBP:JETSCAPE jamesmulligan$ git log -n 3
commit 6a4fe892f720618e7aa5db14f85d19c951b37a55 (HEAD -> master, tag: v3.1.0, origin/master, origin/HEAD)
Author: James Mulligan <james.mulligan@berkeley.edu>
Date: Sat Jul 11 15:36:34 2020 -0700

    Update README.md

commit e916115827a3840a4115b8b10e9fb379ecce1509
Merge: 3b0e2ca 2e7b91d
Author: James Mulligan <james.mulligan@berkeley.edu>
Date: Tue Jul 7 15:12:36 2020 -0700

    Merge pull request #54 from JETSCAPE/chun_fix

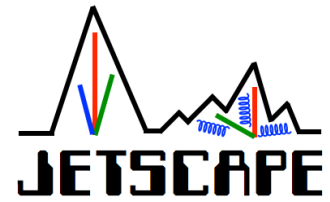
    fixed a typo in the SoftParticlization


commit 2e7b91dde700f52e118e23ff6b34abd108e3b1b9
Author: Chun Shen <chunshen1987@gmail.com>
Date: Tue Jul 7 17:00:00 2020 -0400

    fixed a typo in the SoftParticlization
```

JETSCAPE Releases

<https://github.com/JETSCAPE/JETSCAPE/releases>






[Pull requests](#) [Issues](#) [Marketplace](#) [Explore](#)


[JETSCAPE / JETSCAPE](#) [Unwatch](#)

[Code](#) [Issues 4](#) [Pull requests 1](#) [Actions](#) [Projects](#) [Wiki](#) [Security](#) [Insights](#) [Settings](#)

[Releases](#) [Tags](#)

Latest release


 v3.1.0

 6a4fe89

Verified

Compare ▼


JETSCAPE 3.1.0


 jdmulligan released this 2 days ago

Release notes:

- Update Liquefier module
- Update iSS interface
- Update docker base image to v1.4
- Minor bug fixes and improvements

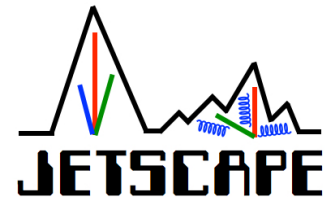
Assets 2

 [Source code \(zip\)](#)

 [Source code \(tar.gz\)](#)

In general, you should use the latest release available (equal to master branch)

JETSCAPE Releases

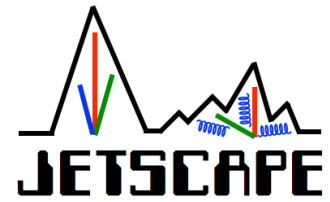


Note: You can also checkout different releases directly with git

[Outside docker container]

```
Jamess-MBP:JETSCAPE jamesmulligan$ git tag
v1.2
v1.3
v1.4
v2.0
v2.2
v3.0
v3.0.1
v3.0.2
v3.1.0
Jamess-MBP:JETSCAPE jamesmulligan$ git checkout tags/v3.1.0 -b v3.1.0
Switched to a new branch 'v3.1.0'
```

JETSCAPE Releases



You can “watch” JETSCAPE to be notified of new releases

Search or jump to... Pull requests Issues Marketplace Explore

JETSCAPE / JETSCAPE

<> Code Issues 4 Pull requests 1 Actions Projects Wiki Security Insights Settings

Branch: master Go to file Add file Code

jdmulligan committed 6a4fe89 2 days ago 1,686 commits 4 branches 9 tags

| | | |
|-------------------|--|--------------|
| .github/workflows | update docker base image: STAT python packages, heppy, and a few ... | 10 days ago |
| cmakemodules | Fix SMASH includes | 2 months ago |
| config | add option to control afterburner type in JETSCAPE | 8 days ago |
| docker | update docker base image: STAT python packages, heppy, and a few ... | 10 days ago |
| examples | update of liquefier for its unittest | 10 days ago |
| external_packages | Update SMASH installation instructions | 2 months ago |
| jail | Revert "A version that compiles" | 8 months ago |
| src | fixed a typo in the SoftParticlization | 6 days ago |
| .clang-format | standardize code formatting with clang-format | 5 months ago |
| .gitignore | Add SMASH wrapper | 2 years ago |
| AUTHORS | minor cleanup and documentation improvements | 5 months ago |

About

JETSCAPE, a modular, task-based framework for simulating all aspects of heavy-ion collisions.

Readme View license

Releases 9

JETSCAPE 3.1.0 Latest 2 days ago

+ 8 releases

Packages

No packages published
[Publish your first package](#)

Build JETSCAPE

with external packages enabled

To run certain external software (MUSIC, CLVisc, SMASH), you will need to explicitly download them, and you may need to re-run `cmake` with specific command-line options. Scripts to download and install the external packages are provided in `external_packages/`. Please see [external packages](#) for full details.

```
cd JETSCAPE/external_packages  
./get_music.sh  
./get_iss.sh  
./get_freestream-milne.sh  
./get_lbtTab.sh
```

Downloaded during prep instructions

The available cmake options are:

```
cmake .. -DUSE_MUSIC=ON -DUSE_ISS=ON -DUSE_FREESTREAM=ON -DUSE_SMASH=ON -DUSE_CLVISC=ON
```

[inside container]

```
cd JETSCAPE/build
```

```
cmake .. -DUSE_MUSIC=ON -DUSE_ISS=ON -DUSE_FREESTREAM=ON
```

```
make -j4 # Builds using 4 cores; adapt as appropriate
```

Build JETSCAPE

with external packages enabled

Note: If you notice a problem after running `cmake`, you may need to remove the build directory and repeat from scratch

[inside container]

```
cd JETSCAPE
```

```
rm -r build
```

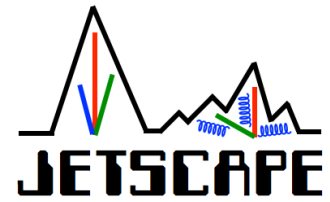
```
mkdir build
```

```
cd build
```

```
cmake .. -DUSE_MUSIC=ON -DUSE_ISS=ON -DUSE_FREESTREAM=ON
```

```
make -j4 # Builds using 4 cores; adapt as appropriate
```

Build JETSCAPE



Let's check that we successfully built the external packages

[inside container]

cd JETSCAPE/build

./runJetscape ../config/jetscape_user_twostagehydro.xml

```
[Info] 152MB =====
[Info] 152MB nEvents = 1
[Info] 152MB Reuse Hydro: true
[Info] 152MB nReuseHydro: 5
[Info] 152MB JetScapeTaskSupport found seed 0, using one engine for all and reseeding to 421865716
[Info] 152MB Intialize CausalLiquefier ...
[Info] 152MB Created liquefier.
[Info] 152MB JetScape::DetermineTaskList() -- Initial State: Added Trento module to task list.
[Info] 152MB JetScape::DetermineTaskList() -- Hard Process: Added PGun to task list.
[Info] 152MB JetScape::DetermineTaskList() -- PreDynamics: Added MUSIC Dynamics to task list.
[Info] 152MB JetScape::DetermineTaskList() -- Hydro: Added MUSIC to task list.
[Info] 152MB Set ID to: MUSIC_1
[Info] 152MB JetScape::DetermineTaskList() -- Added liquefier to Eloss.
[Info] 153MB JetScape::DetermineTaskList() -- Eloss: Added Matter to Eloss list.
[Info] 153MB JetScape::DetermineTaskList() -- Eloss: Added LBT to Eloss list.
[Info] 153MB JetScape::DetermineTaskList() -- Hydro: Added MUSIC to task list.
[Info] 153MB Set ID to: MUSIC_2
[Info] 153MB JetScape::DetermineTaskList() -- Hydro: Added liquefier to MUSIC.
[Info] 153MB JetScape::DetermineTaskList() -- JetHadronization: Added ColorlessHadronization to task list.
[Info] 153MB JetScape::DetermineTaskList() -- SoftParticlization: Added iSS to task list.
[Info] 153MB JetScape::DetermineTaskList() -- JetScape::InitTaskList (JetScape.dat) added to task list.
[Info] 153MB =====
```

No need to successfully run the whole script — we just want to check that these modules exist

The End!

Thank you to all of the TAs and chairs!