Major issues

Installation woes:

Typo in installation instructions on GitHub page (not on skyportal.io page)

On `https://github.com/skyportal/skyportal`
`brew install install supervisor nginx postgresql node geckodriver`

`vs on:`
`https://skyportal.io/docs/setup.html`
`brew install supervisor nginx postgresql node`

`geckodriver` is needed to execute `make test` so it's absence is understandable, but please note that there are issues executing the tests (see attached log file).
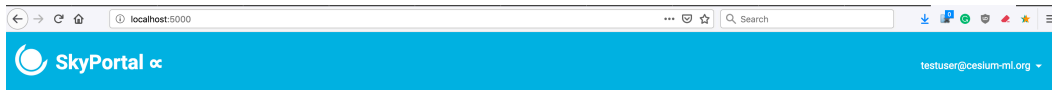
The GitHub page makes no mention of Homebrew being a dependency. Note that while Homebrew is fairly common, it is not standard software on a Mac. The versions of the packages being installed are not listed, and it is not clear if specific minimum versions are needed (presumably).

It would also be useful to have a method of installation that does not require root. The authors provide a way to create a docker container, but to get to the point of creating the docker image, you still have to go through the rest of installation procedure that implicitly requires root. Why the docker image couldn't be provided directly is unclear.

Default installation lacks functionality:

On connecting to the web server and logging in, this is the page the user is greeted with (see below). Without any data to populate the webpage, there is no clear demonstration of functionality. I attempted to debug the issue with the intention of providing useful feedback to the authors, but the monitor system using supervisor does not indicate any problem (output from `status` at supervisor prompt included in monitor.log). I also attempted to run the tests provided with the software, and found that all failed. Output from stdout included and listed as a separate issue.

Moreover the documentation is entirely silent on how to go about adding data in a way for it to be rendered in the webpage. While I've been fortunate enough to see the authors demonstrate the system live, I have not been able to reproduce their own demonstration. The documentation that is live for v1.0: https://skyportal.io/docs/usage.html has explicit #TODOs remaining. Even if the the example page rendered, there is considerable work to be done for the documentation to be useful.

THIS SPACE DELIBERATELY LEFT BLANK?

The paper includes explicitly: "For machine users, SkyPortal provides a token-based API, meaning that all of its data can be queried and modified by scripts without using the browser frontend." None of this API is documented.

All Tests fail:

See attached test.log for output from stdout on executing tests.

These major issues fail the JOSS checklist for Functionality (Installation and Functionality) and Documentation (Installation Instructions, Example Usage, Functionality Documentation, and Automated Tests).

Minor Issues

JOSS also requires a "Statement of Need": Do the authors clearly state what problems the software is designed to solve and who the target audience is?

This isn't explicit in the paper or the documentation.
I was delighted to see the system demonstrated live, and see the applications and uses for this system, and the architecture as described is very clean. The paper itself is fine,

but there are key issues to address with the installation and the existing documentation. I hope the authors will address these issues, as this will make sky portal a valuable tool for the community.