

JWST Director's Discretionary Early Release Science Program Preliminary Budget Template

Proposal Title:

PIs Last Name:

In the form below, estimate the budget items to be requested by each co-investigator at the respective institution. All costs should be fully loaded (including salaries) to include benefits, direct, and indirect costs, as well as all other overhead costs. If uncertain, place cost in the **Other** column.

Co-I Last Name	Institution	Salaries	Travel	Equipment	Publicatio	Other	Totals
Kocevski	Colby College	\$105,400	\$4,913	\$4,913	\$3,275	\$0	\$118,500
Zakamska	Johns Hopkins	\$114,800	\$4,980	\$4,980	\$3,320	\$0	\$128,080
Myers	University of Wyoming	\$38,824	\$0	\$4,335	\$0	\$0	\$43,159
Total		\$259,024	\$9,893	\$14,228	\$6,595	\$0	\$289,739

Budget Justification: Include a brief, clearly stated narrative justifying the the costs itemized in the table above.

a. Salaries: include a description of benefits

JWST DD-ERS Preliminary Budget Template

We are asking for support for two Postdoctoral Researchers, one at Johns Hopkins University, one at Colby College, and Summer Salary for Prof. Myers. With the ERS Science Enabling Products (SEPs) needing to be in place before Cycle 2, we realistically and ideally require postdoctoral-level support, with both positions starting by October 2018. The summer salary would be for Summer 2019.

The first postdoc would be held at JHU, under the supervision of Prof. Zakamska. This position, at least for the first year, would be very specifically for this ERS ERQ work and indeed, this postdoc would be both an analysis and science leader in the ERS ERQ team.

The second Postdoctoral fellow would then be supervised by Prof. Kocevski at Colby College. This position would likely have a broader science remit than ‘just’ the ERS, which would then couple very nicely to the Kocevski Research Group.

Both JHU and Colby have a good track record of attracting high quality postdoc researchers, late in the job cycle (which this would be). Having the postdocs in place by Oct 2018 would then give them adequate time to ramp up to first Science observations. There is the potential for “matched funds” at either JHU or Colby, which would reduce the overall cost by e.g. $\$105,400/2 = \$52,700$. Discussions there are ongoing.

Two months of summer salary (\$9,374.67 per month) is requested for Co-I Myers. Myers will ensure that code written for the collaboration is shared on GitHub, and adheres to strict modern coding standards such as a shared installation setup in a virtual environment (using, e.g., Anaconda), unit testing (continuous integration of code with, e.g., Travis), sphinx processing of documentation (e.g., for ReadTheDocs hosting) and tutorials and code examples for reproducibility (using, e.g., Jupyter Notebooks).

For the two postdocs and the summer salary, and in order to ensure that the most up-to-date standards are applied, equipment costs for an up-to-date workstation (\$3000) are requested. Salary costs are based on the actual rates in effect for AY 2017/18. Fringe benefits have been calculated in accordance with standard rates for the Colby College/ Johns Hopkins/University of Wyoming as appropriate.

b. Travel

Appropriate travel budget for the postdocs to travel to institutes of other team members and present at international conferences.

JWST DD-ERS Preliminary Budget Template

c. Equipment

Having topline e.g. MacBook Pros is the major, and only, equipments request here.

e. Publication

An appropriate level of funding is asked for page charges (though, *nota bene* and as we state in the proposal, this will most likely be *after* the Cycle 2 CfP.

f. Other

All other (generally incidental) costs will be covered by the PIs Fellowship.

Table of contribution of all investigators

Clearly describe the contribution of each investigator and science collaborator (funded and non-funded, foreign and U.S

Last Name	Institution	Investigator or Role	Personnel Type (faculty, postdoc, student)	Description of scientific involvement	Labor funding requested ?	% FTE Effort
Ross	University of Edinburgh	PI	STFC ERF	Overall Team Coordination, Lead author Survey paper	no	100%
Rosario	Durham University	Co PI	Postdoc	AGN-SF host galaxy expert	no	25%
Alexander	Durham University	Co-I	Faculty	MIR spectroscopy expert	no	10%
Alexandroff	University of Toronto	Co-I	Postdoc	Radio, ERQ expert	no	25%
Banerji	Cambridge University	Co-I	RS URF	Red quasar-galaxy evol expert	no	100%
Brandt	Penn State University	Co-I	Faculty	AGN Xray expert	no	10%
Fan	Steward Observatory, Uni. of	Co-I	Faculty	Red, high-z quasar expert	no	10%
Hamann	UC, Riverside	Co-I	Faculty	ERQ expert; ALMA Cycle 5 PI	no	10%
Kocevski	Colby College	Co-I	Faculty	AGN-SF host galaxy expert	yes	25%
Kocevski PD	Colby College	Co-I	Postdoc	AGN-SF host galaxy expert	yes	100%
LaMassa	STScI	Co-I	Staff Scien	Xray QSO/time domain expert	no	10%

JWST DD-ERS Preliminary Budget Template

Lawrence	University of Edinburgh	Co-I	Faculty	Xray/IR/time domain expert	no	25%
MacLeod	Harvard-Smithsonian CfA	Co-I	Postdoc	Survey QSO expert	no	10%
Mullaney	Sheffield University	Co-I	Faculty	AGN-SF host galaxy expert	no	10%
Myers	University of Wyoming	Co-I	Faculty	Survey QSO expert	yes	25%-100%
Runnoe	University of Michigan	Co-I	Postdoc	QSO emission line expert	no	10%
Schneider	Penn State University	Co-I	Faculty	QSO/Survey Expert	no	10%
Stott	Lancaster University	Co-I	Faculty	High-z IR IFU Expert	no	25%
Strauss	Princeton University	Co-I	Faculty	QSO/Survey Expert	no	10%
Smit	Cambridge University	Co-I	Postdoc	AGN HST Deep Field Expert	no	10%
Zakamsaka	Johns Hopkins University	Co-I	Faculty	Type 2 QSO outflow expert	yes	10%
Zakamsaka PD	Johns Hopkins University	Co-I	Postdoc	Leads Science Analysis	yes	100%

JWST DD-ERS Preliminary Budget Template

