

FY2018 JSA Initiatives Fund Proposal Summary Sheet

Proposal title

"Frontiers and Careers in Photonuclear Physics" Workshop 2018

Project Start Date (month/year) August 2, 2018

Project End Date (month/year) August 4, 2018



New proposal



Renewal

Total funds requested \$5000.00

Total leveraged support / matching funds. Details of funds must be included in budget proposal. \$4000.00

To be completed by JSA: Total funds awarded \$2,000.00

Principal Investigator (PI) Axel Schmidt

Institutional affiliation
Mailing address
Email / phone #
Massachusetts Institute of Technology
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Cambridge, MA 02139
USA
schmidta@mit.edu / +1 412-983-9488

Co-PI (if more than 1, add pages with information) Erez Cohen

Institutional affiliation
Mailing address
Email / phone #
Tel Aviv University
School of Physics and Astronomy
Tel Aviv 69978
Israel
erezcoh4@mail.tau.ac.il

Check one category: If PI is a Lab employee, your identification of the appropriate Associate Director below represents the acknowledgement of that AD with your submittal of proposal. No signature required.



Lab employee: Identify Associate Director (email / phone)



Lab user: Identify University affiliation (email / phone)
Joint appointee: identify University and Lab division association (email / phone)

JLab users, Axel: MIT, schmidta@mit.edu, Erez: TAU, erezcoh4@mail.tau.ac.il



Other: Identify Institutional affiliation (email / phone)

Proposal: Attach file with

- (1) Executive summary and technical proposal
- (2) Synopsis of scientific, educational, technical, and/or business merits, and alignment with and significance to Lab's current program
- (3) Proposed evaluation plan to measure success. If this is a request for renewal of funds, assessment of prior year performance,

Your proposal may include letters of endorsement and other supporting information (maximum of 12 pages including this summary sheet and budget sheet)

Budget Proposal

Proposal Title "Frontiers and Careers in Photonuclear Physics" Workshop 2018

Principal Investigator (PI) Axel Schmidt

Total funds requested \$5000.00

To be completed by JSA: Total funds awarded \$2,000.00

	Item Description		Amount
Equipment. Lab users submitting proposals that include equipment to be used at the Lab must review with the appropriate Lab Associate Director. The provision of the name of the AD below represents the AD's acknowledgement. No signature required.			
	Associate Director: _____		

	_____	Subtotal Equipment	0
Travel Support. Provide break-out of estimates for registration fees, lodging and transportation, catering, and facility charges (room rentals, AV equipment; etc.)			
	Travel assistance, allocated by need	\$5000	
	Lodging Assistance: \$85 per person x 40 attendees	\$3400	
	Catering: \$40 per person x 40 attendees	\$1600	

		Subtotal Travel	\$10,000
Supplies			

		Subtotal Supplies	0
Consultants/Subcontracts			

		Subtotal Consultants/Subcontracts	0
Other Expenses. Examples include stipends and honoraria, prizes, awards.			

		Subtotal Other Expenses	0
		Total Budget Proposal	\$10,000

Budget Justification: Include narrative to explain need for each line item in the budget, showing breakdown of calculations used to arrive at the amount in each line of the budget. Note that the JSA Initiatives Fund Program does not support salaries and salary-related expenses, or indirect expenses.

Leveraged Support/Matching Funds information. Identify the source, type and amount of dollar funds from each institution. Include **separately** estimated value of in-kind support. Your identification of the authorized representative who has committed institutional support for your proposal represents the acknowledgement of that individual. If support or funds are provided by the Lab, identify the associate director (or equivalent) as the authorized representative. Information may be included on separate page.

The requested budget is primarily aimed at supporting accommodation and travel costs of the students and postdocs who will participate in the workshop. Unfortunately, limited travel funds from nuclear physics research budgets can significantly reduce attendance. Our ability to provide support funds can make a large difference in attracting participants, and boosting attendance of both the workshop and the Gordon Conference. The 2016 workshop, hosted by the University of New Hampshire, was able to completely cover lodging and meals for workshop attendees leading to a large attendance and to increased participation in the Gordon conference. The travel support we hope to offer will help students travel to and from Boston, alleviating the primary financial burden of attending Gordon.

We list a total budget of \$5000, anticipating receiving approximately \$5000 of matching funds. \$4000 of matching funds have been committed so far. \$2000 have been committed from Jefferson Lab (through Deputy Director Dr. Robert McKeown), and \$2000 have been committed from the MIT Laboratory for Nuclear Science (through Prof. Or Hen at MIT). We aim to raise an additional \$1000 of matching funds from another university or laboratory partner. Our fundraising efforts for 2018 will intensify after the conclusion of the 2017 conference in October.

Frontiers and Careers in Photo-nuclear Physics Student Workshop

Axel Schmidt (MIT) and Erez Cohen (Tel Aviv Univ.)

JSA Initiatives Fund Proposal

1 Introduction

The “Frontiers and Careers” workshop series has been growing successfully since 2014. It has served as a pre-conference workshop, aimed at graduate students and recent PhDs, preceding the Electromagnetic Interactions of Nucleons and Nuclei (EINN) conference in Europe in odd years and the Gordon Conference on Photo-nuclear Physics in the United States in even years. The workshop has three missions. The first is to familiarize the attendees with the frontiers of nuclear physics. To this end, the workshop includes lectures with a more pedagogical focus delivered by eminent researchers. The goal is to help widen the horizons of the attendees, who may have limited experience beyond their narrow research topic. These pedagogical lectures introduce the concepts and techniques that will be discussed in the main conference sessions, and go a long way in helping to make the main conference more accessible. The second mission is to present career-building information to the attendees. This includes advice on writing a CV, preparing for interviews, building a research portfolio, grant-writing, and applying for faculty and research positions. This information is not often presented to students in a formal context, and a workshop setting, where attendees bring a diverse set of experiences, is conducive to eliciting a wide-range of questions and profound discussion. The third mission is to provide a venue for students to speak about their research. As part of the program, every attendee is invited to give a talk with time allotted for questions and discussion. In addition to providing an opportunity for all attendees to practice their presentation skills, these pre-conference talks showcase the breadth of research in photo-nuclear physics.

2 Executive Summary for the 2018 Workshop

Title: Frontiers and Careers in Photo-nuclear Physics

Principle Investigators: Axel Schmidt
Massachusetts Institute of Technology
77 Massachusetts Ave., 26-407
Cambridge MA, 02138, USA

Erez Cohen
Tel Aviv University
School of Physics and Astronomy,
Tel Aviv 69978, Israel

Affiliation: Both of us are Jefferson Lab Users

Funds Requested: \$5000
Matching Funds: \$4000

Dates: August 2–4, 2018
Location: MIT Laboratory for Nuclear Science, Cambridge, MA

The 2018 “Frontiers and Careers” workshop will be held at MIT in the three-days before the 2018 Gordon Conference, which will take place in nearby Holderness, NH. This is the second time that the “Frontiers and Careers” workshop will be held at this location, after the 2014 edition of the workshop, which was successful, with approximately 25 attendees. For the 2018 edition, our goal is grow the workshop and to attract an additional 10–15 attendees. Hosting the workshop at MIT will allow us to take advantage of MIT resources such as dormitories, classrooms, and audiovisual support.

3 Synopsis

As Jefferson Lab is the international flagship facility for photo-nuclear physics, the Gordon Research Conference on Photonuclear Reactions is one of the pre-eminent conferences for showcasing the scientific breakthroughs produced at Jefferson Lab. The Gordon Conference has a strong tradition of Jefferson Lab participation and the conference covers topics that are relevant to both the work of the Jefferson Lab theory division as well as the experimental program.

The Gordon Conference is a strong attractor for young people to electromagnetic nuclear physics, the scientific cornerstone of a future electron-ion collider (EIC) being proposed in the U.S. The young physicists attending the conference will be the leaders of the EIC scientific program when it becomes a reality in about a decade. The Gordon Conference has traditionally focused on par-

ticipation by young physicists, making it a natural partner for “Frontiers and Careers.” The “Frontiers and Careers” workshop aims to:

- Boost participation in the Gordon Conference by students and new PhDs,
- Make the Gordon Conference more accessible to workshop attendees,
- Generate interest among the attendees for continued work in the field of photo-nuclear physics,
- Provide attendees with advice for planning academic careers in the field.

As such, the “Frontiers and Careers” workshop is completely aligned with the goals and missions of Jefferson Lab. The workshop highlights the current research and recent results of Jefferson Lab for attendees who are in early stages of planning their careers and deciding what research topics are most interesting. This workshop helps maintain the strong pipeline of talent that supports the Jefferson Lab research effort.

As in every previous edition of “Frontiers and Careers,” we will evaluate the workshop through anonymous questionnaires given to participants. This feedback has been important for improving each iteration of the workshop.

4 Budget

Anticipating 40 attendees:

Category	Break-down	Subtotal
Travel Assistance	allocated based on need	\$5,000
Lodging Assistance	\$85 per person for two days \times 40	\$3,400
Catering	\$40 per person for two days \times 40	\$1,600
Total		\$10,000

The requested budget is primarily aimed at supporting accommodation and travel costs of the students and postdocs who will participate in the workshop. Unfortunately, limited travel funds from nuclear physics research budgets can significantly reduce attendance. Our ability to provide support funds can make a large difference in attracting participants, and boosting attendance of both the workshop and the Gordon Conference. The 2016 workshop, hosted by the University of New Hampshire, was able to completely cover lodging and meals for workshop attendees leading to a large attendance and to increased participation in the Gordon conference. The travel support we hope to offer will help students travel to and from Boston, alleviating the primary financial burden of attending Gordon.

We list a total budget of \$10,000, anticipating receiving approximately \$5000 of matching funds in addition to our request from the Initiatives Fund. \$4000 of these matching funds have been secured so far. Jefferson Lab, (through Deputy Director Dr. Robert McKeown) has committed \$2000, and the MIT Laboratory

for Nuclear Science has also committed \$2000. We anticipate being able to raise an additional \$1000 from another university or laboratory partner. We base this estimate from our current experience raising funds for the 2017 edition of the Frontiers Workshop, which, being in October 2017, falls too soon to be covered in this cycle of the Initiatives Fund. For the 2017 edition, in partnership with EINN, we have secured funding from the National Science Foundation and from the European Physical Society. Our fundraising efforts for 2018 will intensify after the successful conclusion of the 2017 workshop.

5 Summary

We are requesting \$5000 from the Initiatives Fund to support a workshop for students and young physicists focused on photonuclear physics and on career development. Our aim to attract young physicists to the upcoming Gordon conference, boost the effectiveness of that conference, and, in the longer term, attract and foster talent in the field of electromagnetic-nuclear physics. As Jefferson Lab is the world's pre-eminent experimental facility in this field, this workshop has goals that are completely aligned with those of the Initiatives Fund, as well as the intellectual, outreach, and scientific missions of Jefferson Lab.