

1

00:00:08.400 --> 00:00:10.620

DOE - Jeremy Love: Is it possible for me to share my video.

2

00:00:15.509 --> 00:00:17.039

Andrew Fowler: yeah it shouldn't, is it not letting you.

3

00:00:17.760 --> 00:00:19.980

DOE - Jeremy Love: know it says stopped it.

4

00:00:23.310 --> 00:00:26.490

Andrew Fowler: Oh, I selected it Okay, you can try again sorry.

5

00:00:28.200 --> 00:00:28.470

yeah.

6

00:00:34.290 --> 00:00:35.520

DOE - Jeremy Love: So much and share the video.

7

00:09:52.740 --> 00:10:04.740

DOE - Jeremy Love: Okay looks like it's a few minutes after the hour, so why don't we get started, and people can join our we're going through the the slides will be prepared to introduce the discussion.

8

00:10:05.700 --> 00:10:20.760

DOE - Jeremy Love: Just so that everyone's aware and the slides are posted on the ATP research Ai initiative web page, so if you'd like to take a look at those they're there and they'll also there after the fact, so people can look at them on their own.

9

00:10:22.170 --> 00:10:35.370

DOE - Jeremy Love: And so first off welcome this is a virtual Town Hall for the artificial intelligence research for high energy physics away, and this is a new, high energy physics away in support of the deal we office of science, the Ai initiative.

10

00:10:36.210 --> 00:10:41.190

DOE - Jeremy Love: And this meeting is to provide some context and clarification for the fly and to answer your questions.

11

00:10:41.700 --> 00:10:47.250

DOE - Jeremy Love: At the end of the slides please use the raise hand feature in zoom to indicate, you would like to ask the question.

12

00:10:47.820 --> 00:10:58.290

DOE - Jeremy Love: Please try and keep your questions general and concise and can get to as many as possible, and please avoid including specifics of any research topics are teaming arrangements to be proposed as part of a question.

13

00:11:01.260 --> 00:11:13.560

DOE - Jeremy Love: Here you see the organization of the office of energy physics and we have some energy physics independent advantage, the theory missions and objectives are balanced portfolio of scientific research facilities operations and projects.

14

00:11:13.920 --> 00:11:25.770

DOE - Jeremy Love: And by the development of key technologies and trained person power needed to work at the cutting edge of science, so you can see here how the research is organized and many of the people responsible for these various aspects are on the call.

15

00:11:26.190 --> 00:11:34.200

DOE - Jeremy Love: And if you have any questions related to the priorities of those missions of the individual boxes those can be found on the ATP website.

16

00:11:35.940 --> 00:11:41.850

DOE - Jeremy Love: But the mission behind the geophysics program is to understand how the universe works at its most fundamental level.

17

00:11:42.330 --> 00:11:48.960

DOE - Jeremy Love: By discovering the elementary constituents of matter and energy program the interactions between them and exploring the basic nature of space and time.

18

00:11:49.560 --> 00:11:56.370

DOE - Jeremy Love: Experimental science and technology R and D is mission driven it develops and supports this specific portfolio of projects.

19

00:11:56.700 --> 00:12:04.470

DOE - Jeremy Love: emphasis is placed on supporting science collaborations and all stages conducting experiments and seeking the best power possible science results.

20

00:12:04.950 --> 00:12:11.550

DOE - Jeremy Love: And made significant coherent contributions to facilities and experiments selected for the program including project management.

21

00:12:12.270 --> 00:12:21.270

DOE - Jeremy Love: It supports R and D that will advance the state of the art in particle accelerators and detectors which lead to new, more capable facilities.

22

00:12:21.660 --> 00:12:29.220

DOE - Jeremy Love: And it supports RD to enable new and transformative capabilities and quantum information and Ai ml and cross cutting technology areas.

23

00:12:29.760 --> 00:12:39.120

DOE - Jeremy Love: The theory programs supports activities that provide the vision and the mathematical framework for understanding and extending our knowledge of particles forces facetime and the universe.

24

00:12:39.690 --> 00:12:53.520

DOE - Jeremy Love: And, in total, high energy physics supports approximately 85% of the US particle physics research that is done in dollar amount, including roughly all the work carried out at a national labs and priorities are set by the p five report.

25

00:12:55.980 --> 00:13:12.690

DOE - Jeremy Love: The President has placed a high priority on ensuring continued US leadership and Ai research and development, the goal is to lead the world in the development of trustworthy Ai and air the future us workforce for the integration of Ai systems across all sectors of economy and society.

26

00:13:14.040 --> 00:13:20.610

DOE - Jeremy Love: broad interest in Ai is being driven by the accumulation of large data sets and growing computational capacity for processing them.

27

00:13:21.240 --> 00:13:26.190

DOE - Jeremy Love: machine learning is included, when appropriate, as a tool to derive insights from these large datasets.

28

00:13:26.880 --> 00:13:31.860

DOE - Jeremy Love: The daily office of scientists, if you to support Ai research that maximizes the scientific impact.

29

00:13:32.490 --> 00:13:45.690

DOE - Jeremy Love: And this is done by furthering the scientific mission beyond what is currently possible developing new and improved methods of analyzing data sets to extract information and developing tools to broaden participation among the interested communities.

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00:13:47.460 --> 00:13:58.500

DOE - Jeremy Love: particle physics, has a long history of being early adopters of Ai ml technology and they do this to do great science and a few examples from the past, some of today's most popular Ai ml topics.

31

00:13:58.860 --> 00:14:05.880

DOE - Jeremy Love: Are studies of electronic photon separation and sensitivity improvement for HC searches at the zero from the late 80s.

32

00:14:06.450 --> 00:14:25.080

DOE - Jeremy Love: Study of using vs I know that computational accelerator for CDF isolation trigger based on the Intel utah's neural net processor, and the HARA each one experiment used neural net hardware trigger running xilinx fpga to process events.

33

00:14:26.490 --> 00:14:32.670

DOE - Jeremy Love: So, in recognition of this this long history, high energy physics supports Ai ml research activities through two paths.

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00:14:33.270 --> 00:14:38.400

DOE - Jeremy Love: The first is programmatic Ai ml, and this is research that isn't integrated and embedded into the.

35

00:14:38.970 --> 00:14:46.590

DOE - Jeremy Love: Frontier programs, these are applications of primarily machine learning techniques used to improve high energy physics results within a given frontier.

36

00:14:47.160 --> 00:14:55.140

DOE - Jeremy Love: And this work is supported to the university and lab comparative review process, in addition, we have a more fly based approach.

37

00:14:55.680 --> 00:15:06.930

DOE - Jeremy Love: For core aim L and this is research into Ai and ml topics from a high energy physics perspective as well as blue sky R amp D that's necessary to enable future ATP breakthroughs across frontiers.

38

00:15:07.620 --> 00:15:18.030

DOE - Jeremy Love: The snapshot of some of the current Korea no programs are several early career awards which have been awarded across high energy physics frontiers and include significant Ai ml components.

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00:15:18.480 --> 00:15:25.080

DOE - Jeremy Love: of machine learning across from tues, which is a computational DTP program to develop machine learning applications behind the geophysics.

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00:15:25.800 --> 00:15:33.330

DOE - Jeremy Love: The exit tricks project, which is another computationally to program to us to scale computing to perform track reconstruction for high luminosity HC.

41

00:15:34.290 --> 00:15:46.710

DOE - Jeremy Love: And Ai for science scientific user facilities which are projects to develop Ai systems that can improve online facility operations and to know is this Fo ACP to grow this core Ai and know Program.

42

00:15:48.840 --> 00:15:58.530

DOE - Jeremy Love: This Fo as a key to support new research distinct from the currently funded work or consolidation and existing research that's now being carried out and multiple institutions.

43

00:15:59.130 --> 00:16:05.670

DOE - Jeremy Love: And the thrust of this Fo a are distinct from a complimentary to the university in life, prepare to review core research programs.

44

00:16:07.080 --> 00:16:18.690

DOE - Jeremy Love: The request applications primarily targeting one in three topic areas, the first is Ai for high energy physics, this is Ai research that furthers high energy physics priorities of pursuing the p five science drivers.

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00:16:19.200 --> 00:16:27.480

DOE - Jeremy Love: The second is high energy physics for artificial intelligence Ai research that makes use of unique aspects of high energy physics data sets theory, etc.

46

00:16:27.870 --> 00:16:33.270

DOE - Jeremy Love: To improve our understanding of the theoretical capabilities and limitations and fundamental Ai techniques.

47

00:16:33.810 --> 00:16:38.850

DOE - Jeremy Love: And the http API ecosystem, which is a production of open data set software ecosystem.

48

00:16:39.300 --> 00:16:47.010

DOE - Jeremy Love: ecosystems or access to shared computing resources that enable broad democratic participation in our research for energy physics.

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00:16:47.520 --> 00:16:51.870

DOE - Jeremy Love: And this is, including democratic participation from historically underserved communities.

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00:16:52.560 --> 00:17:03.780

DOE - Jeremy Love: And the first thrust the Ai very GP proposals or software innovative applications of Ai tools and techniques or demonstration and development of new capabilities that are not currently available to HIV HIV researchers.

51

00:17:04.170 --> 00:17:09.120

DOE - Jeremy Love: These applications that go well beyond programmatic aim or research or especially encouraged.

52

00:17:11.100 --> 00:17:16.680

DOE - Jeremy Love: So the solicitation provides up to a total of \$10 million over three years or 3.3 million per year.

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00:17:17.220 --> 00:17:24.810

DOE - Jeremy Love: And as few as to and as many as 50 projects may be supported and the exact expected number is to be determined by the number of.

54

00:17:25.110 --> 00:17:33.660



DOE - Jeremy Love: meritorious proposals received, but the expectation is that will be approximately three multi institution proposals and on the order of 10 seed proposals.

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00:17:34.530 --> 00:17:45.030

DOE - Jeremy Love: eligible institutions or universities and colleges, as well as do we national labs through two distinct paths, the first is multi institution team proposals that are led by do we national labs.

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00:17:45.600 --> 00:17:59.280

DOE - Jeremy Love: With an anticipated a word size of between 500 and 750 K per year and single institution cedar Ward proposals form university and colleges in the anticipated award size is between 50 and 75.

57

00:18:00.900 --> 00:18:18.450

DOE - Jeremy Love: But there's a contender optional but highly encouraged and the deadline is April 21 at 5pm Eastern we do not anticipate encouraging or discouraging lives, however, we will use them to start preparing the review process and so having an ally, will allow us to make any decisions.

58

00:18:19.740 --> 00:18:30.720

DOE - Jeremy Love: The full application deadline is may 24 at midnight Eastern standard time and research is the primary priority support through this F away with hardware at a lower level.

59

00:18:31.920 --> 00:18:46.350

DOE - Jeremy Love: proposals are asked to estimate the computing resources they will need and to identify how those needs will be met modest computing time at nurse may be available for some successful proposals and, if necessary, that should be identified in the proposal.

60

00:18:48.330 --> 00:18:55.470

DOE - Jeremy Love: So, as mentioned, there are two application pass the first is our multi institution team applications that must be led by the national lab.

61

00:18:56.310 --> 00:19:10.980

DOE - Jeremy Love: And these are submitted as a single application Bible lead lab with sub awards to other do a national labs colleges universities or other eligible institutions as identify them if away and as appropriate for the research without restriction or requirement.

62

00:19:12.060 --> 00:19:22.770

DOE - Jeremy Love: I believe API from the lead lab is expected to charge 25% of their effort to the award the lead PA may not appear as a senior investigator or key personnel on any other application.

63

00:19:24.210 --> 00:19:37.350

DOE - Jeremy Love: Ideally national labs may submit up to form of the institution applications and do a national labs may not submit single institution see the applications and the project narrative limit for multi institution awards is 15.

64

00:19:39.510 --> 00:19:45.840

DOE - Jeremy Love: single institution seat applications, the other path must be submitted by an eligible institutions such as a college or university.

65

00:19:46.380 --> 00:19:54.120

DOE - Jeremy Love: And then may contain multiple P is from that institution and each institution may submit up to four single institution seat or patients.

66

00:19:54.930 --> 00:20:05.190

DOE - Jeremy Love: And this is, regardless of their participation of any of the p eyes as civil liberties in multi institution applications and the project narrative for single institution is limited to five pages.

67

00:20:09.090 --> 00:20:24.960

DOE - Jeremy Love: The multi institution teams were seeking broad ambitious research that requires the multiple institutions to address multifaceted questions with scientific inquiry, and this is particularly appropriate when these challenges can be factor eyes across the TEAM members and institutions.

68

00:20:26.580 --> 00:20:32.760

DOE - Jeremy Love: Seed applications were looking for exploratory investigations and smaller scale studies, a feasibility.

69

00:20:33.330 --> 00:20:40.980

DOE - Jeremy Love: And so we're looking for researchers or institutions that are new to either Ai research or ATP research or.

70

00:20:41.700 --> 00:20:47.370

DOE - Jeremy Love: Experienced fee eyes and institutions that are looking to establish the feasibility of blue sky research idea.

71

00:20:48.270 --> 00:21:04.710

DOE - Jeremy Love: and have these two paths Both are equally valid and encouraged and both the Multi institution and seed paths multi disciplinary efforts are encouraged when appropriate for the proposed work, and these are partnerships across ATP frontiers and with non ATP Ai ml experts.

72

00:21:05.790 --> 00:21:13.710

DOE - Jeremy Love: are given the expected number of awards and the level of interest that we've received so far enough away review process is expected to be extremely competitive.

73

00:21:14.460 --> 00:21:24.330

DOE - Jeremy Love: As always, the focus should be on submitting high quality proposals and not strictly on the quantity submitted institutions are allowed to submit it for applications but are not required to do so.

74

00:21:27.150 --> 00:21:36.840

DOE - Jeremy Love: So there have been changes to the dmv office of science Fo aids for apply 22 please read the fly very carefully for details of specific requirements.

75

00:21:37.410 --> 00:21:45.660

DOE - Jeremy Love: As always start very early and do not wait for a response to the NLRB submitted to begin preparation of the full application.

76

00:21:46.350 --> 00:21:56.520

DOE - Jeremy Love: Please rate a sensible and well formatted and spell check coi list and follow the updated guidance in the fly for who should be included on that list of coi names.

77

00:21:57.660 --> 00:22:05.280

DOE - Jeremy Love: Letters of support or recommendation are not allowed for applications, however letters from experimental collaborations that are targeted by.

78

00:22:05.850 --> 00:22:19.350

DOE - Jeremy Love: posed research and studying a willingness to perform routine unnecessary software maintenance after the award period are not considered letters of support they are considered letters of collaboration and each application may include up to five letters of collaboration.

79

00:22:20.400 --> 00:22:24.990

DOE - Jeremy Love: And finally, as always, please do not wait until the deadline to submit applications.

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00:22:26.070 --> 00:22:29.910

DOE - Jeremy Love: So that is all, so we will now open the floor for questions.

81

00:22:34.290 --> 00:22:38.010

Glen Crawford: JEREMY there's a question in the chat about the page limits.

82

00:22:43.200 --> 00:22:54.930

DOE - Jeremy Love: Okay, if the fly says 2010 it is 20 and I have a typo So the first question from non trend is in the fly it says multi institution applications should be less than 20 pages, but here treatments 15.

83

00:22:56.160 --> 00:22:57.810

DOE - Jeremy Love: With clarify the.

84

00:22:58.950 --> 00:23:08.490

DOE - Jeremy Love: Clarification is that it must be 20 and the same question was asked by oxygen hydrogen as well, so my apologize, I will update the slides with the correct number.

85

00:23:21.960 --> 00:23:22.290

Thank you.

86

00:23:26.190 --> 00:23:27.720

DOE - Jeremy Love: There additional question.

87

00:23:28.350 --> 00:23:32.040

Glen Crawford: there's a couple of hands raised, I don't know if you want to call them people JEREMY or if you can see them.

88

00:23:32.220 --> 00:23:36.660

DOE - Jeremy Love: yeah i'm sorry i'm trying to see participant list here we go.

89

00:23:42.210 --> 00:23:49.770

DOE - Jeremy Love: So, on my list Jonathan Khan, is the first person with their hand raise your hand if you'd like to ask your question.

90

00:23:51.090 --> 00:23:51.720

Yonatan Kahn: hi can you hear me.

91

00:23:52.320 --> 00:24:04.080

Yonatan Kahn: Yes, thanks so much i'm so reading the thought it looked like the recommendation was the focus for this proposal is exclusively on either one of the tracks have for Ai or Ai for have.

92

00:24:04.920 --> 00:24:14.220

Yonatan Kahn: But in a lot of sort of applications in this there's a really virtuous cycle in developing sort of new tools and then showing how that application can help drive stuff forward.

93

00:24:14.490 --> 00:24:21.360

Yonatan Kahn: um so would it be allowable to have some component of both but sort of have one either be the be the primary focus.

94

00:24:22.110 --> 00:24:27.030

DOE - Jeremy Love: yeah that's absolutely correct so there's obviously going to be some overlap and you know research that's.

95

00:24:27.240 --> 00:24:41.460

DOE - Jeremy Love: Primarily, targeting one area will have demonstrations in the other and may result in you know papers, or some other product and the other area that's of interest and that's clearly allowable The goal is to primarily focus on one area is that all.

96

00:24:42.840 --> 00:24:43.410

Yonatan Kahn: Right, thank you.

97

00:24:45.960 --> 00:24:49.050

DOE - Jeremy Love: Thank you, it looks like Stefan luck is next.

98

00:24:52.350 --> 00:24:52.950

Stephane Willocq: Can you hear me.

99

00:24:53.700 --> 00:24:54.450

DOE - Jeremy Love: hello, yes.

100

00:24:54.540 --> 00:25:04.140

Stephane Willocq: Yes, right so um I have a question on I think it's on your slides number seven where you show the different these different rod the tracks I guess.

101

00:25:04.410 --> 00:25:20.100

Stephane Willocq: Yes, in particular the Ai forehead where, as you mentioned, part of this activity has been funded through the best program i'd like to understand why, where is the line between the two so.

102

00:25:22.440 --> 00:25:24.300

Stephane Willocq: If you understand my question right.

103

00:25:24.750 --> 00:25:28.110

DOE - Jeremy Love: I think I do um so the the.

104

00:25:30.870 --> 00:25:37.050

DOE - Jeremy Love: The line is you know, not necessarily well defined, but the goal is to really find work that as well beyond it.

105

00:25:37.890 --> 00:25:53.070

DOE - Jeremy Love: So, for example, if you are funded to do some research using machine learning techniques and you're proposing to use, you know more modern techniques to do that sort of machine learning research I think we're looking for something a little bit more ambitious and that sort of thing.

106

00:25:54.120 --> 00:26:06.540

DOE - Jeremy Love: If you're proposing to bring machine learning to a new area that you're funded to work on, but not to use machine learning in that area, I think that would be something that we are open to considering if that makes the line, a little bit clear.

107

00:26:07.140 --> 00:26:19.410

DOE - Jeremy Love: I do have the actual descriptions from the Fo a in my backup slides I don't know if this is necessarily or helpful but that's a little bit more detailed description of the three areas okay.

108

00:26:25.980 --> 00:26:26.580

Stephane Willocq: Okay, thank you.

109

00:26:30.810 --> 00:26:35.940

DOE - Jeremy Love: looks like Jesse Shelton is the third hand or there was raised in the.



110

00:26:39.540 --> 00:26:42.570

Jessie Shelton: Yes, I did not realize my hand was up.

111

00:26:46.230 --> 00:26:51.120

DOE - Jeremy Love: Okay, so there's some questions in the chat looks like.

112

00:26:53.970 --> 00:26:57.150

DOE - Jeremy Love: Some your Kim asked, could you please explain again.

113

00:26:58.230 --> 00:27:10.920

DOE - Jeremy Love: For the http for Ai, I would like to understand the goal better yes so as shown on the side that maturity here http for Ai is really trying to seek you know.

114

00:27:11.610 --> 00:27:19.500

DOE - Jeremy Love: better insight into artificial intelligence and machine learning tools and techniques and that sort of insight gained.

115

00:27:19.980 --> 00:27:27.990

DOE - Jeremy Love: Through high energy physics So these are questions that you need petabytes of well understood data that sort of thing if you have.

116

00:27:28.800 --> 00:27:39.840

DOE - Jeremy Love: sort of well validated models that you can use uncertainty quantification for physics informed machine learning those sorts of topics are sort of what we're looking for.

117

00:27:41.280 --> 00:27:48.420

DOE - Jeremy Love: machine learning enhance modeling and simulation those those types of things, I hope that sort of answers your question.

118

00:27:52.140 --> 00:28:03.840

DOE - Jeremy Love: there's another question in the chat from David share, could you please clarify what establishing feasibility of blue sky research means in the context of the seed grants.

119

00:28:04.530 --> 00:28:13.290

DOE - Jeremy Love: For example, if one writes proof of concept papers using toy collider data which might go on [http://ah](#), for example, is this what is meant by boost our research.

120

00:28:13.650 --> 00:28:24.090

DOE - Jeremy Love: And I think the answer to that question is maybe it will sort of depend on what what the application is of the Tory Monaco.

121

00:28:24.990 --> 00:28:38.940

DOE - Jeremy Love: But I think that could certainly be the right idea, so I think these are sort of the idea would be that these are sort of proof of concept applications that that you know, are our new and have not been explored yet.

122

00:28:39.840 --> 00:28:53.580

DOE - Jeremy Love: But were some small amount of effort, a few Grad students postdocs something on that order could establish whether this is a an interesting path to pursue in the future and make more realistic I think that's the type of application that we're seeking.

123

00:28:55.380 --> 00:29:02.790

DOE - Jeremy Love: Hopefully that makes sense and these can be extremely ambitious applications, you know transfer learning or whatever.

124

00:29:04.200 --> 00:29:05.010

DOE - Jeremy Love: is appropriate.

125

00:29:06.600 --> 00:29:09.480

DOE - Jeremy Love: um okay out that that answers your question.

126

00:29:12.390 --> 00:29:13.050

DOE - Jeremy Love: Okay excellent.

127

00:29:15.390 --> 00:29:23.520

DOE - Jeremy Love: looks like we have another hand from a I don't know Stefan is is your hand leftover from before.

128

00:29:26.190 --> 00:29:30.990

Stephane Willocq: Yes, it is sorry I yeah I did the interface is different than i'm used to.

129

00:29:32.970 --> 00:29:38.820

DOE - Jeremy Love: webinars um so it looks like non China has has hundreds monkey like to ask question.

130

00:29:39.690 --> 00:29:48.120

Nhan Tran: yeah I hear me um I was wondering how overlaps with current like open.

131

00:29:49.230 --> 00:30:00.630

Nhan Tran: API funding proposals should be handled on thinking, in particular, like early career award proposal should we be can, should we worry about it overlaps or or not.

132

00:30:01.110 --> 00:30:15.390

DOE - Jeremy Love: um so you know pending pending support should certainly be called out in the Fo a and a case of early career award these decisions should be made in public, by the time the review process, for this is well underway, but.

133

00:30:16.470 --> 00:30:19.800

DOE - Jeremy Love: I don't know if, when we'd like to comment more specifically.

134

00:30:20.850 --> 00:30:29.670

Glen Crawford: Well, I think it's always a good idea to be as clear as you can with reviewers about what you're in a particular application.

135

00:30:29.970 --> 00:30:36.330

Glen Crawford: What you're proposing and how it relates may relate to something else that you're being funded for or already doing.

136

00:30:37.140 --> 00:30:54.360

Glen Crawford: Because you know, as we say, never, never make the reviewers guests right if they're aware of your work and say well isn't he you know here's a funded to do this already then spelling out clearly yes, I am funded to do X, but my proposal here is for why is always a good idea.

137

00:30:55.680 --> 00:30:59.790

Nhan Tran: Okay, but so so, then they should not be both expert I guess is the point.

138

00:31:01.320 --> 00:31:04.980

Glen Crawford: Having them both be X is probably not your best strategy okay.

139

00:31:05.430 --> 00:31:06.150

Nhan Tran: All right, thank you.

140

00:31:09.510 --> 00:31:13.980

DOE - Jeremy Love: Okay, it looks like Roger our research, we have a Christmas.

141

00:31:17.400 --> 00:31:33.150

Roger W Rusack: Yes, I have just it's simply a question of who is eligible from institutions to submit to the to this Fo re are you restricted to faculty and tenure tenure track faculty or tenured faculty or can this be included by research can research scientist also submit to this.

142

00:31:34.860 --> 00:31:42.420

DOE - Jeremy Love: um that is a good question, I do not think we have any restrictions in the hallway on who can who can apply, so I believe.

143

00:31:42.750 --> 00:31:44.490

Roger W Rusack: Anyone I couldn't find any but.

144

00:31:45.540 --> 00:31:47.850

DOE - Jeremy Love: If one wants to comment but I don't believe we restricted.

145

00:31:48.360 --> 00:31:55.110

Glen Crawford: and think if your institution allows a person with a certain appointment to submit a application, they are eligible.

146

00:31:55.860 --> 00:31:56.550

Roger W Rusack: Good Thank you.

147

00:31:59.760 --> 00:32:03.180

DOE - Jeremy Love: Okay, it looks like early edlin has travis.

148

00:32:06.900 --> 00:32:16.290

Auralee Edelen: hey thanks um so I had a question about the hub for Ai part of the call it in relation to the Ai for help, so, for example, if.

149

00:32:16.860 --> 00:32:31.020

Auralee Edelen: We wanted to advance some of the methods called out in have for Ai part specifically to help address problems that we know we encounter in different health applications, I mean to what degree.

150

00:32:32.220 --> 00:32:37.290

Auralee Edelen: Is is that sort of in line versus having a much more.

151

00:32:39.090 --> 00:32:41.820

Auralee Edelen: Like theoretical computer science.

152

00:32:43.980 --> 00:32:44.490

Auralee Edelen: effort.

153

00:32:45.780 --> 00:32:47.010

Auralee Edelen: In addition to.

154

00:32:48.240 --> 00:32:53.460

Auralee Edelen: You know, developing some of these methods and then using them in practice for applications.

155

00:32:54.510 --> 00:33:10.890

DOE - Jeremy Love: So I think if I, if I understand your question correctly you're saying there's you know somewhat specific technical challenges that are often encountered and tackling those sort of ATP specific machine learning issues or problems is sort of the focus and if that's in line.

156

00:33:12.270 --> 00:33:19.830

DOE - Jeremy Love: And I think that, as far as I understand that there's yeah there's no restriction against that that would fall into the it up for Ai category.

157

00:33:21.090 --> 00:33:33.750

DOE - Jeremy Love: You know the ultimate application may be targeting Ai for http sort of applications, but this would shed light on to the sort of fundamental techniques and limitations of the Ai technologies.

158

00:33:34.800 --> 00:33:35.460

Auralee Edelen: Great Thank you.

159

00:33:37.980 --> 00:33:41.130

DOE - Jeremy Love: looks like we have a few questions in the chat.

160

00:33:42.510 --> 00:33:45.870

Glen Crawford: We also have a few in the Q amp a stream, which had been there for a little while.

161

00:33:46.320 --> 00:33:48.840

DOE - Jeremy Love: I apologize to anyone does.

162

00:33:49.050 --> 00:33:49.620

Glen Crawford: yeah I don't.

163

00:33:52.290 --> 00:34:06.930

DOE - Jeremy Love: Okay, so from anonymous attendee but this initiative continue annually um I think a we have not yet committed to doing that, but I think if the interest on the Community is there, this is certainly something we could do.

164

00:34:09.330 --> 00:34:24.540

DOE - Jeremy Love: And then, and some Boston has asked him applications for the EIC be considered as Ai for ATP and I would say that we are looking for applications that are in line with the p five science drivers and the priorities of the officers high energy physics.

165

00:34:24.960 --> 00:34:31.950

DOE - Jeremy Love: So if if those applications are aligned with that, and then I think those will be our priorities that we use to make decisions.

166

00:34:33.990 --> 00:34:34.890

DOE - Jeremy Love: So Aaron.

167

00:34:36.030 --> 00:34:46.140

DOE - Jeremy Love: They were a pichardo asks, including democratic participation from historically underserved communities is this mostly encouraged for multi institution applications or also for seed applications.

168

00:34:46.470 --> 00:35:04.170



DOE - Jeremy Love: Since this fits within HEPA ecosystems, this is for both so either either a multi institution or seed applications may apply to to this category, so if your institution is looking to increase democratic participation, you are you're welcome to apply in this area through the the sea path.

169

00:35:06.690 --> 00:35:19.470

DOE - Jeremy Love: and Chad Mitchell asks it was stated that the p is expected charge 25% of their effort, I assume that more than 25% is accessible Is that correct, that is correct, I believe in the.

170

00:35:20.010 --> 00:35:27.720

DOE - Jeremy Love: near future the languages at least 25% so Mars is fine as appropriate for the work that's being carried out.

171

00:35:30.480 --> 00:35:32.880

DOE - Jeremy Love: So I think those are all of the open questions.

172

00:35:34.740 --> 00:35:37.440

Glen Crawford: there's more in the chat actually since you want us.

173

00:35:38.550 --> 00:36:00.810

DOE - Jeremy Love: So it looks like I apologize name is cut off the news angle could post off from national labs applied to be a lead PR for the fly as Glenn mentioned if your institution allows your position or the position to be a lead on an award and I think that's fine.

174

00:36:04.020 --> 00:36:10.170

DOE - Jeremy Love: Jim pelo courtesy asks is this anticipated to a permanent program or is this a pilot.

175

00:36:11.010 --> 00:36:22.470

DOE - Jeremy Love: Will there be future calls on yearly or three or timescale, or is it too early to speculate on that, so I think, yes, it is too early to to certainly save for uncertainty, but it has indicated, we view this as.

176

00:36:22.980 --> 00:36:29.280

DOE - Jeremy Love: sort of helping to grow this aspect of the program, and so we certainly do this is somewhat of a pilot and.

177

00:36:30.000 --> 00:36:42.180

DOE - Jeremy Love: are optimistic that the funding will be able to support additional calls, but I I think we'll see based on the level of interest from the Community, as well as you know what budgets are able to facilitate.

178

00:36:51.450 --> 00:37:04.860

William Kilgore: So i've been typing in the answers in the Q amp a box, but I was distracted and did not hear the answers to the questions from Charter and Mitchell so if someone else can fill that in for me, I would appreciate it.

179

00:37:05.700 --> 00:37:21.330

DOE - Jeremy Love: Thank you very much, Bill i'm written, so there is a new question from Jason St john is there an explicit designation of the senior and key personnel status for the bloggers, as part of the application material or how is that says evaluated.

180

00:37:22.530 --> 00:37:34.830

DOE - Jeremy Love: I believe in the Fo a it is required to the lead institution identify the senior and key personnel who are the individuals that will work on the project at the lead institution and so those are the individuals being.

181

00:37:35.100 --> 00:37:43.920

DOE - Jeremy Love: Being referenced here so they're typically the people at the lead institution, who are also working on the on the words that are not the lead API.

182

00:37:45.450 --> 00:37:46.140

That make sense.

183

00:37:48.000 --> 00:37:56.550

Glen Crawford: So, to be more specific in the university context right, these are usually the named people on on the budget sheets right which is.

184

00:37:57.420 --> 00:38:08.820

Glen Crawford: Typically, but not always faculty research scientists other senior personnel, as opposed to postdocs and graduate students, but again depends a little bit on the walls of your institution.

185

00:38:21.090 --> 00:38:36.090

DOE - Jeremy Love: question in the chat from Jonathan con for seed grants or letters of collaboration from infinity collaborators at other non do we lab institutions permitted or our letters of collaboration only permitted from experiments.

186

00:38:36.660 --> 00:38:41.250

DOE - Jeremy Love: Others of collaboration of all kinds are permitted, not just from experiments.

187

00:38:43.170 --> 00:38:46.200

DOE - Jeremy Love: And the yeah I think that's that's the answer.

188

00:39:03.150 --> 00:39:04.590

DOE - Jeremy Love: Another question.

189

00:39:07.080 --> 00:39:17.670

DOE - Jeremy Love: From Jim Hello chrissy, how can you comment, how much of the Ai ml remarks ones are focused on this call, as opposed to being paired with the core research Program.

190

00:39:18.480 --> 00:39:37.560

DOE - Jeremy Love: um so I don't think we can make a distinct call on what the locations, but as it's identified in the way the goal is to devote about 3 million per year to this call a little bit more for a total of \$10 million over the three year cycle of the awards.

191

00:40:05.490 --> 00:40:25.230

DOE - Jeremy Love: um one thing to notice that this is being recorded and that hopefully that transcripts will be posted to the ATP Ai initiative webpage and as well as soon, we should have faq up on both the http API web page, as well as under the FRA itself.

192

00:40:26.490 --> 00:40:30.030

DOE - Jeremy Love: So there'll be hopefully more guidance there person.

193

00:40:34.860 --> 00:40:36.390

DOE -- Eric Church: And there's one more be scheduled.

194

00:40:37.440 --> 00:40:39.270

DOE - Jeremy Love: that's also heard your pocket you Eric.

195

00:40:40.290 --> 00:40:48.180

DOE - Jeremy Love: So next week on Tuesday I believe we will have a second of these virtual town halls for anyone who was not able to attend.

196

00:40:50.070 --> 00:40:50.850

DOE - Jeremy Love: to attend today.

197

00:40:53.310 --> 00:40:55.350

DOE - Jeremy Love: or for anyone who's interested to hear this again.

198

00:40:58.200 --> 00:41:00.750

Glen Crawford: Or you think of a question to me now and then and.

199

00:41:01.290 --> 00:41:01.770

DOE - Jeremy Love: You can.

200

00:41:02.790 --> 00:41:03.960

Glen Crawford: send it to the next session.

201

00:41:07.980 --> 00:41:09.630

Glen Crawford: there's another new question the chat.

202

00:41:10.920 --> 00:41:18.780

DOE - Jeremy Love: Okay, so David she asks how can you comment these on what consolidation of existing research on slide seven means.

203

00:41:19.290 --> 00:41:24.750

DOE - Jeremy Love: Is there a possibility slash risk that are 50 theory grants will be transferred over to this new funding source.

204

00:41:25.350 --> 00:41:36.090

DOE - Jeremy Love: So I do not believe there is a risk associated with that what is meant is that, if there are several institutions pursuing similar investigations.

205

00:41:36.600 --> 00:41:48.870

DOE - Jeremy Love: And that you know where the sort of current diffuse efforts would be you know able to accomplish more if they were more focused that's that's sort of the target, so if there's multiple people who are thinking about.

206

00:41:50.490 --> 00:42:04.620

DOE - Jeremy Love: For example, tracking at high luminosity he hasn't mentioned with regards to the eccentric project if those can be combined into one proposal or application that would be able to accomplish more and that's the sort of the sort of idea.

207

00:42:29.370 --> 00:42:36.510

DOE - Jeremy Love: One piece of clarification that I meant to the slides but there's an APP was that.

208

00:42:37.710 --> 00:42:47.310

DOE - Jeremy Love: On what what is considered currently funding currently funded efforts are considered to be efforts that are supported by a funding entity outside of your institution.

209

00:42:47.670 --> 00:42:57.180

DOE - Jeremy Love: So if work is being supported through lab lb RD or university overhead return or some equivalent internal mechanism that is not considered funded research effort.

210

00:42:57.750 --> 00:43:05.850

DOE - Jeremy Love: we're considering activities that are supported by an external funding entity as ongoing existing research efforts that helps anyone.

211

00:44:13.800 --> 00:44:20.490

DOE - Jeremy Love: Okay, well, if there are any final questions I don't know if people want to get them in.

212

00:44:24.450 --> 00:44:24.810

Their hand.

213

00:44:28.290 --> 00:44:40.080

DOE - Jeremy Love: If If not, then I like to thank everyone for for joining and ask them questions, and please feel free to go next next week and ask any questions that you think of.

214

00:44:41.580 --> 00:44:46.560

DOE - Jeremy Love: and we look forward to seeing your your muscles, in a few weeks.

215

00:44:51.210 --> 00:44:51.510

Thank you.