

- Deep Medhi (NSF/CISE)

00:46

All right. It's a one minute past uh hour, so as uh

- folks join in to listen to it. The participants we'll get it started. I'm Dick, Me. I'm a program director in the Computer and Network Systems Division at the
- National Science Foundation with me. We have colleague Nicolas Goldsmith from the same division, as well as Fred. Sorry,
- young Jang from the statistics program in the Dms. Division Division of Mathematical Sciences, and at Pennsylvania
- also from the same division. So we're going to go over a set of information about this program that we started last year, and we have two upcoming deadline for this program in the beginning of the year.
- So Internet measurement, research solicitation was the twenty two desk, five hundred and nine, and we tried to cover three aspect methodologies, tools, and infrastructure.
- So I've mentioned about myself and Nicolas. I'm at Kinsey, Yong and Yong Zhang in That's Kenya. There are other program officers involved. In this program, and one layman, my colleague, Darling Fisher, murderer.
- And then so um Setsi program, Danielle, Oliveira and Jim Joseph and Computer and communication foundations division Peter grass, and from the office of advanced cyber infrastructure, Rob Beverly and Kevin Thomas.
- So i'll go over uh briefly about Diana program to start with.
- So the idea is to have a focus program on Internet measurement. But we felt that the Internet measurement work from a research perspective still being done in an ad hoc and peaceful manner.
- And ah! You know, and also, if you look at it, we have from the core network all the way to wireless network the mobile network. We want to have a better understanding and more comprehensive understanding of how all this works together in terms of
- Ah, how
- the citizens are experiencing the performance of the systems.
- Ah, so when you think about the providers, whether it is the cell phone provider, cell service, provider or Internet service provider, they do sometimes rely some data on performance, but they are a couple of problems within their core screen, or it's Provider Pacific, or you know that.
- Ah, that gives you only a one-site information about it or limited information about it. Does the ability to have an independent way to assess the performance or Internet performance. And you know, to measure it in that regard is actually very, very important.
- Also, there's very limited understanding on the longitudinal behavior that we've been collecting to be able to understand. And so the goal was to pop. This program is to encourage you,
- coordinate and connect research in internal measurement in a very comprehensive manner. So we ended up creating a tree tracks track. One is the methodologies and methods Track two is measurement to development and demonstration

- and factory. Is that a planning track for Internet measurement-related infrastructure. That track is not available in fiscal year two thousand and three. It was available last year. However, there will be an opportunity for folks to submit proposal under one hundred and fifty.
- Another program that we have for creating the measurement related to infrastructure, and that will be announced. When the solicitation is out. In the next couple of months
- we see a collection within all the three tracks. We try to kind of give a pictorial view here about what is going it, that if we
- I have the ability to, i'll start with.
- Ah, i'll start with track one there that if there are new methods, and to to to to to mythologies, created Italy Bro. That can actually help two ways.
- It can go into developing new tools down the road or track to submissions. And then not only that there might be analyzes and improvement in the collection that can actually also help to attract tree in terms of measure, manuality, and infrastructure.
- Furthermore, any data comes from this sort of a infrastructure. A data for analysis may help track one to create new methods and methodologies as well.
- And of course, if you have the tools develop in track to that can actually go to be a part of the repository in factory, so that the community can broadly use it and to be able to do it.
- So that's sort of giving you a high-level pictorial picture of how we see and region these tracks being connected.
- Um: So I I already mentioned we in our directorate for computer science and Information, the Computer and Information Center Engineering Directory at all. Our divisions are involved, Cns:
- but as well as the Cross Directorate program called Satsey, secure and trustworthy server
- based program.
- You'll see where they come into the picture. And then, as I mentioned, we have



Unknown Speaker

07:01

for mathematical and physical sciences the division of political sciences in also one.



Deep Medhi (NSF/CISE)

07:14

So let's start with track one. So, as I said, it is the methodologies and method strips. So we want to support new methods for collecting,

- modeling and analyzing Internet, measurement, but as well as an on myeration of the data.
- Ah, just to give you an example. If you think about the Ip address, Ip address in certain situations, even if you wanted to be able to use it. You want to anonymize, but you'd want to anonymize in a way,
- although there have been some techniques before in a way so that it cannot be de anonymized to figure out where it is coming. That's sort of an example of where we see the anonymization. So within track one we have three subtracts. One is focus on
- statistical methodologies. We support the creation of new stochastic model statistical model for the internalism and research. What can we be done in that area?
- Going to the part about anonymization? One B is a privacy presiding methodologist. We want to support new innovative techniques that will ends your privacy and protection of the data, because many cases, some data, we may not be able to actually
- publicly make everything available. So what are the new methods can be used in the context of the Internet. Measurement? And that may be.
- What I want to point out is that we are not expecting this methodologies to be completely new for privacy preserving. But that has been developed by, for example, researcher in the set C program. They might see a way to be able to
- kind of adapt to the in the context of the Internet. Development research.
- And then we have one seat that is like a catchfall, everything, and that may create a machine learning method. You know any other thing you can think about that We don't um. Ah, ah! Fall directly into one, A or one B. And sometimes, if you are not sure that you have a machine learning method that has something related to privacy, preserving, for example, you may have a question whether you know to submit, or one B or one, c. Our
- guidance is that you want to look at it, which one is more where you are contributing, more. Is it about one B or it that will fall under one seat? Accordingly you may submit it.
- The budget for tract one is, you can be up to six hundred thousand dollars up to four years, and it can be a collaborative project. You can do it. So
- so track one to give you a little bit more example up one. A: So we have the statistical methodologies, you know. It could be to address skew to Internet measurement. How can you deviate it?
- As you know, I will give an example, for example,
- that if we let's say, do some sort of a speed test. And if you what we know from anecdotally is that that users try a spit test when they get a new service.
- If the Internet is not working. So you can see that already there is a built-in via subd most user when the test
- and use that speed test. So if that's the case, most of the that can happen, how can we actually do it? Secondly, there may be more related to one particular geographic area compared to another one. Is there any way
- to kind of address the lack of geographic diversity, sparsity of collected data, and any bias that might come from Crowdsources data as well.
- Um, you might think about the statistical sampling method to obtain holistic measurement of the Internet in different dimension, or a better sense of the health of the Internet. That's an important thing to keep in mind the models that allow for normalization of collected data

- or extrapolation Internet data modeling at different frequency, including high dimensional high frequency and mixed frequency data analysis, longitudinal studies that I mentioned earlier statistical analysis, such as
- change, point and regression, analysis of the Internet multi-streaming data and assessment of the validity of crowdsourced data set Now, when I list this in here that these are not. These are only
- representative examples are, we're not restricting that these are the only ones you can think about.
- Uh one important thing about one track. One is if we expect
- that both Internet measurement researchers and statistics researchers collaborate to put the proposals together, and that's, I think, a very important point to know.
- So one be on privacy preserving methodologies. This track is intended, as I said, for the addressing any privacy consumer in the data life cycle a collection that has always de-identified data creation of method to be identified. Existing data
- Erez Agmon, the creation of anonymization methods which do not compromise data, quality and utility creation of methods to access and share collected data in a privacy-preserving manner, and private entrepreneurs are preserving analysis will be terminated. How can we one hundred and fifty
- As for track one. We, the privacy preserving methodology, we strongly encourage. We have what Internet measurement, resources and security researchers together. When you put a proposal to
- Erez Agmon, a one C is again, Isaac, catch all. Everything can be there, as you can see. Aiml falls into that, maybe integration of my zoom and a core and access network you want to do with the ability to characterize performance reduction of footprint or one hundred and fifty?
- Are we proving efficiency of kind data collection method, and maybe you will look into the IPv6 address space. We want to encourage you to get as IPv6 being deployed, and more and more
- examination of the extent to which cross-layer specification the measurement can be rendered useful,
- and it could be propagation map signal-related measurements, and what not so so again one is, as I say, catch all everything that doesn't fall into one B, one A, and one V can be addressed.
- Break two is, as I said, in that the the visual we had earlier before that goes to a tool development and demonstration. This is basically said that you already have done the research already, and then you are trying to put together tools from there on. Um. And so so it's a development of a deployment in a tool that is, may collect data at different level, including but limited or Internet,
- a handheld device at laptop
- and tool that can be deployed also by our space, so that the tools are very broad in that sense. Ah! And if the proposal should seek to demonstrate the application of tolling a tool in a particular environment, and to make the tool publicly. That's a requirement for this track. Um! And with this ah idea that Ah!
- What we said is at least one version of the tool is expected to be available to open source license.

- You may consider some privacy and security aspect in the tool, and so, when we try to address this, or they keep that in mind.
- Ah, this one is a total budget is ah up to six hundred thousand dollars, and it's a more shorter time under two years, because we want to the tools to be developed. That means resource is already done. We want to move into the close phase of it. Ah, one may request another one hundred thousand dollars down the road.
- I at least um after eighteen months into the project, in case they have some additional thing they want to add on, and that again depends on how your you know fun use, and what you are accomplishing in that eighteen months. So it is important to keep that in mind. One one.
- So, um, we kind of give you an idea about the number of awards, you know. Track one. I said three to four years. We expect about eleven awards into that space in a pract to the same number of the awards.
- But duration is short tractory. We do not have tractory any more. This entire program is a forty-five program, fourteen million dollars program over two years. So we are on the second year of this program in the fiscal year at twenty three.
- So the upcoming they're line to keep in mind is that the track one is a deadline, and that that's the practical methodology in efforts. On February fifteenth,
- which is about two months from now and then track two is the tools, one on March eight, and there is no deadline for tracking. But if somebody wants to do a tractory planning proposal, they may still submit under one hundred and fifty.
- Ah! A separate program we have in our director called Size Community Research infrastructure, and that is a planning plan you could submit under that as well. So if you're not familiar with the Celi program. You may let us know A. C share. I programmed the nest. They'd land big line for deadline for the existing one.
- A solicitation is going to be thirdly, cut July.
- So we're going to go over the review criteria at this point I'm. Going to hand it off to my colleague, Nicola schools.



Nicholas Goldsmith (NSF/CISE)

17:32

Hello! So this solicitation has both the two foundation-wide review criteria. As well as solicitation, specific review criteria depending on the track of the project.

- So the first of the two and a half-wide review criteria is the intellectual merit criteria. And This looks at the potential for the proposal to advance knowledge.
- And so the question to kind of think about in terms of intellectual merit are: what is the potential for the proposed activity to advance knowledge and understanding within its own field or across different fields.
- To what extent do the proposed activities suggest and explore creative, original or potentially transformative concepts?

- Is there a plan or is the plan for carrying out the proposed activities? Well reasoned, well-organized, and based on sound rationale and does the plan incorporate a mechanism to assess? Success.
- And then how well qualified is the individual team or organization to conduct the proposed activity, and are there adequate resources available to the principal investigator, either at their home institution, or through collaborations to carry out the proposed activities.
- The second thing where viewers will be considering when looking at their proposals are the broader impact
- criteria. Uh, this is another foundation-wide criteria looking at, uh, the potential to benefit society contribute to the achievement of a specific desired. So these questions are kind of similar to the intellectual merit questions. But instead of looking at the potential to enhance knowledge, it's looking at potential benefits to society.
- And so what is the potential for the proposed activity to benefit society or advance desired societal outcomes? To what extent do the proposed activities suggest and explore creative, original or potentially transformative concepts, is
- the plan to carry out the proposed activities? Um Low reason, well organized and based on sound rationale? And does it incorporate mechanism to assess success, you would, of course, the qualifications of the team and the resources available. Are they adequate
- in addition to the two foundation-wide review criteria. This solicitation also has solicitation, specific review criteria, so for the track one material and methods section. These
- solicitation-specific review criteria can also depend on the specific subtrack
- so for all of the methodology proposals. Reviewers will consider how the proposed methodology fills a current gap
- and its significance in Internet measurement. So does this project address a significant problem in the area of Internet measurements, and is the prior research supporting the proposed research rigorous
- for those in the statistical methods. Subtract statistical innovation will also be considered. So are the proposed statistical methods innovative? Does a project apply existing statistical methods to a new situation? And if yes, how challenging are these applications
- also for the statistical methodologies. Subtract Ah, integration is the criterion. So how well do the proposed statistical methods integrate with the intended Internet measurement problems? And how well does the project develop new statistical methodologies that can apply to Internet? Measures
- for track one B, that privacy, preserving methodologies uh tread? There's a privacy, preserving innovation criterion. So how well do the proposed privacy? Protection methods integrate with the intended Internet measurement privacy, problems. And how well does the project develop new privacy, definition, methodologies that can apply to
- for all of these subtracks for methodologies of integration and utility is considered. So how well will the proposed methods integrate with the intended Internet measurement problems. To what extent do the approaches proposed preserve data, utility,
- and then for the two non-privacy-related tracks. Um reviewers will consider if security and privacy aspects are being considered in the design, implementation and evaluation of the proposed method methodology.
- So for the second uh track, the

- the tool, development and demonstration track. There are also solicitation, specific review criteria. So reviewers will consider how broadly applicable the tool is expected to be. If the tool will provide a new method for collecting Internet measurement data. You'll also consider if the tool is developed for end users, how that tool will provide privacy and data collection
- Reviewers will also consider if the tool will be publicly deployable, and if there are plans for an open source license, and if so, how
- then our security and privacy, aspects being considered in the design, implementation, and evaluation
- of the proposed tool,



Unknown Speaker

23:26

it's



Nicholas Goldsmith (NSF/CISE)

23:27

So, in addition to the cortex of your proposal, there are some additional submission elements that are required

- or optional. So there are some supplementary documents
- that you may include. So one thing that you should include is a list of project, personnel and partner institutions. This helps with conflict of interest. Checking
- You should also include a list of letters of collaboration that you will include with your proposal, as well as those letters of collaboration and the letters of collaboration should document the collaborative agreements that are significant. For the
- if this is a collaborative proposal. So a proposal. Ah! With more than one pi, you need to include a collaboration plan, so that plan lays out how the collaboration will function. What roles individuals have,
- what method you intend to use to to coordinate and collaborate, as well as any specific budget items related to that collaboration. Again, you need to include this plan. If it's a collaborative proposal, or the proposal will be returned with app for you.
- You also need to include a data management plan which explains how you will manage data in accordance to Nsf's data management and data sharing
- for those of you, considering, collaborating with people at other institutions, collaborative proposals in which

- multiple organizations separately submit the proposal are only allowed in track one. So methodologies. So if you have individuals collaborating from multiple institutions that want to separately submit proposals that are collaborative removal that's only allowed in track
- in to the ah tool demonstration, ah, development and demonstration. Ah! Individuals and other institutions should be awarded is a sub ward of the lead organization.
- So uh, just to put this,
- we state it for track one any non-lead collaborative organizations may submit a collaborative proposal,
- or be a sub awarding, whereas for track two, the tool development and demonstration, non-league, collaborative organizations should be requested as a sub award of the lead organization.
- So those are the main items we had for the Webinar, and we are happy to take your questions.



Deep Medhi (NSF/CISE)

26:11

Ah, thank you, Nicholas, since I have my colleague Yong Zhang, and it's for Pennsylvania. I want to see if they wanted to add anything before we try to answer your questions. Please type in your question in the Q. And A. And we'll be happy to answer those questions. One hundred and fifty.



Yong Zeng

26:30

Yeah. So let me try me. So yeah, we we want to

- thank the size that include a statistic and particular yeah in pen, and the
- and the Dms. Are met community in this space station. And so what we see is I am. So an Internet. Measurement provides abundant data, and also has many important
- to understand how the Internet. Works, and those related applaud topology and other important questions understand that, and then how to make use of that.
- So, And in statistical there is some other data science. They have important
- Ah, in mining or in studying this data. So we through this cessation, we would like to encourage the collaboration from the statistician and the data scientist and
- and a also from the math community. And then to study those are important problems in the Internet measurement research. And so that's what I just want to





Unknown Speaker

27:58

at this.



Deep Medhi (NSF/CISE)

28:02

Thank you. Uh, do you have anything to add?



Edsel Pena (NSF/DMS)

28:04

I could uh, I could also have something

- mathematical mathematician. Statisticians could also get involved in track one
- on the privacy protection, Primary Z. It research because we deal a lot with models in methods of analysis. So so you could also be part of that type of a reason.
- The proposal, aside from one A. So, and we encourage our colleagues in the mathematical sciences, statisticians, probabilist, stochastic process guys to try to contribute or submit proposals.



Deep Medhi (NSF/CISE)

28:47

Thank you, Edsel. I'm going to go to the questions i'm starting to see here. I'll read the question so that it stays in the system. The first question is, Can you please provide the definition of what you mean by Internet measurement?

- I feel like it's not clear. So so. Ah, for Internet measurement. Ah, I gave first an example about something like a speed test we talked about that is this: that's that's one example. We do not necessarily count web performance as a part of the Internet. Measurement.
- The other thing to think about is that if you think about uh the mobile services, you know. Uh, we can think about that that measurement in the wireless space and the cellular. You might be looking at the mobility pattern of the users
- going into from one area to another that maybe how it is impacted are there
- issues related to handoff. That happens because you top connections, so that sort of thing can fall into that, and then you can do more. A community being impacted. Let's say you know whether it is a real broad pen, or
- our inner city, or in a native American reservation, that you might be looking at a different aspect about the service that is being provided. You might then sort of look at it from a that perspective.
- The second question is the Dooda electronic health record data collected from online healthcare system counters Internet measurement data. It does not actually count as a interactism and data.
- Um hard question are we allowed to have collaborators from non-academic non-profit organization for track, one as a subway. Or yes, you may have that as long as you're subtle wording.
- The next question I see, is that
- can one directly submit to track to without published resource method. Ah, yes, if you have a tool sort of like shovel ready, you know you want to do that. You can go straight to the tractor. It is possible without having you know the published method. It doesn't have to be.
- Ah, let's see if I see anything else.
- Okay, One other thing that I can think about from our learning running the program last year is that you know that you have to be. You know you want to
- make sure that you really talk about the tools in a proper context, you know. So so that it is actually something that is
- support in active measurement or testimony, but on the same proposal it doesn't have to be both. So you want to keep that in mind.
- Okay? Sorry. I see new questions now.
- Ah, since track tree is unavailable, it seems every project will have to have an expert. We have done measurement research previously. Is this the right understanding? Yes, because
- because the track one and track two, it's basically track one. What we said is that we want to see a collaboration between for track one a statistics resource of an Internet measurement researchers
- for track, one B for security, researcher and internalism and researchers. The
- sex will be very important, so hard to keep in mind.
- Let me go to the next question.
- Can we elaborate more on long-terminal study we purposefully keep it broad, because we didn't know. We want to see
- how a researcher or team might want to position it if you wanted to look the behavior of the Internet over, you know, going back to the last thing you know that you know, maybe

- related to Bgp. How it is changing That could be possible, or it could be something related to how the
- it is moving in terms of what is going on on the network, as you add new capacity. Is it because of the new technology. And so you want it to be able to capture it? Or is there some areas that you do not get covered before it is getting more coverage now, or it is good
- getting worse. That sort of thing also can be captured in our longitudinal studies.
- Let me go to the next question.
- Measurement often involves building tools. How can we choose between track one and two? Very good question? So
- the the idea of the track two is that something that resource is already done that we have already done the research on how the tool is going to do so. We want it. That's really the intent of track two. But if the resource part is not fully done yet,
- then building that two little bit more, I would say a prototype, and that may fall under under track one. So that's kind of a high, level distinction between track one and twenty two,
- so i'll see if there's any other question that comes up. Let me see. Okay,
- as someone is asking if tractor is more like Ttp.
- But for ah, I am a Ttp. For those who are not familiar with stand for transition to practice. That is
- done by program such as sets. The answer is, Yes and no. The Ttp has some requirement that somebody needs to adapt it here. We are not expecting the track to the tools to be adopted by anybody, but yet,
- so that's not a requirement for you. We want you to develop the tool, make it available, you know, broadly, you know, if we find somebody on the
- A. Tractory-related in metonic measurement related the infrastructure. It is available from that. That's what it is. But you don't have to have
- to the exercise that's expected in terms of um a typical Ttp program where they said, If you have to at least talk to certain number of potential, you know um companies, or you know your user who might use it. That part is not necessary for



Unknown Speaker

36:31

this program.



Deep Medhi (NSF/CISE)

36:34

So next question we have an estimate for the

- where a future solicitation
- following tractory might be issues. Ah! For you. We cannot tell you right now. And so, since something not official yet hopefully, it'll come out soon, and you'll you'll get, you know, not notification about that. So so typical notification, at least for ninety days.



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Unknown Speaker

37:02

Once you get to know,



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Deep Medhi (NSF/CISE)

37:05

the next question would exploding how the Internet web services are evolving across platform, for example, from a resource or bended perspective thoughts and desktop versus maybe it'll be considered an internitism and research. Our general thought is that that

- uh web performance is not
- not on the directly what we had in mind for internalism and research. However, if there is a way, you see that tie in with that. How that impacts on the what we call is the typically layer free part of it. And then, if you're
- connecting between different devices that might be worth exploring it,
- but not just as they are part of, you know. Just one thing as a web for phone
- that that maybe not as that's not originally intent of that, because those you can submit under our core programs



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Unknown Speaker

38:07

slide up



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Deep Medhi (NSF/CISE)

38:11

next question. If an Internet measurement export is necessary, Does that mean the proposal must include a

- ah to gather data or can existing database. Now for track one, we don't expect you to collect gather new data. You might have already a data that is aware.
- But our intent of the Internet measurement expert is that you know to to or, for that matter, statistics expert or security experts that we really want to foster or see collaboration among those research researchers. So that's sort of the intent of that. It is. There could be a,
- you know. So that's really the intent of It's not for just collecting the data, so that if you have an export that you are considering, let's say, a statistic researcher. One
- sort of you are familiar with what are the to crisis of the data? What are issues that might be available and involved in that, so that the methodologies are more applicable to in kind of measure other than the broad statistical methodologies.
- So we are getting very, very good questions. I am happy to see questions and participation by a large group of
- Uh research around the country.
- One other thing I want to point out at This point is that although we have said that for track one and the budget is up to six hundred thousand dollars track to up to six hundred thousand dollars.
- It doesn't mean that your your project is a smaller scale. You don't have to necessarily go all the way up to six hundred thousand. It's only the upper limit. You may submit something in the range of three hundred thousand. If that's what is appropriate for the project, you are doing the methodology or development, one hundred and fifty,
- or the truly wider. I mean, you don't have to go all the way up to six hundred thousand,



Unknown Speaker

40:12

so keep that in mind.



Deep Medhi (NSF/CISE)

40:14

Second thing is for track to when you do to development, we we expect you to have Ah, you know, a a a um software, developer involved rather than graduate student, you know, doing it so that you actually create a you know, really good tool that can be used by others

- solid tunes.
- All right. We'll wait for a couple of more a few more minutes to see if there's any other questions. Otherwise we
- stop it uh we'll hang on uh in the



Unknown Speaker

40:58

this.



Deep Medhi (NSF/CISE)

41:00

Okay, I see a question. Can the P. I be from an industrial resource lab? I think I may be able to want to clarify or send me an email what you

- that I think More Eligible institutions are institutions of higher education or non-profit organizations. So you could be a partner as a in a suba war. So maybe if we have something else in mind,
- all right, i'm not seeing any other questions. I just want to let you know that
- that this recording is going to be available available from the same event. Landing Page, you register to attend this Webinar, but it may take a week or two, and especially because the apologies coming up, it may not get put in the system one hundred and fifty
- available on until maybe the first week of January many people are going on vacation or using up their inwardly,
- and the foundation, So that's secondly, the presentation that I put together will also be available from that landing page. So check back on that link later on.



Edsel Pena (NSF/DMS)

42:51

Two two.

- Yes, there's also the confidence on ah Internet measurements that's going to happen in this category that I was organized by somebody from Wisconsin in Bentley.



Deep Medhi (NSF/CISE)

43:13

Yeah. So I think that's actually by almost by invitation. But if you have some. We have an internal measurement research workshop in

- Ah, January that's organized by two researchers, one from the Internet. Measurement community, one from statistics community. And that's they are doing it. We are purposely doing it in person to
- see some more activities in that space uh, and But if you have interest and an email to me, because it's only by invitation, because there's limited room on who we can support for travel funds to be able to attend that. Thank you itself for reminding me of that.
- In the meantime I saw a couple of more questions, so let me try to answer that. What track can you elaborate what is allowed or what is not a lot regarding who can be a software developer as an example? Can we work with a software, development company to get professional,
- and as a saber word that is possible for tractor. Yes.
- Ah! The next question, If the method and the tool need to be developed together. How do we pick tracks? The very good question Between track one and tractor? There is a similar question before The way I think about is that you make an assessment, saying that i'm going to pick a number, so that when you look at it it looks like
- then I would submit on track one.
- But if it is twenty percent on the third dollars is eighty percent on the tool, you might be almost ready for that. We want to do a little bit of work, and then submit on your track. Remember, tractor has a shorter time for you to deliver it in two years, so keep that in mind. So, and that's why. If it is a mixed,
- not quite sure track, one might be a better fit for it, you know. So
- I see another question. Can the presentation slide be shared sooner than the recorded presentation? Ah, well, I think this is out of my hands. It is handled by another unit at Nsf.
- However, we did the Webinar from a year ago. Those presentation and the slides are already there.
- And so, if you're not sure, send me an email. I will send you that event page from last year where the presentation and the recording is available. It has not changed much at all accepted.
- You know, Track three is no longer available in this year, and that's the main difference in the presentation.

- All right. If there's nothing else on this unless you're young, or at cell, or Nicholas have anything to add. I think we'll wrap up this session



Edsel Pena (NSF/DMS)

46:30

Well, uh from the Dm. Has we simply want to encourage mathematicians to look into the possibility of submitting proposals into this program together, of course, with experts from Internet measurement. So I think it's a great program.



Yong Zeng

46:49

Yeah, And especially if you can identify some fundamental

- problem in the Internet measurement research and also has those potential to develop a new statistic method.
- Yeah, that would be a yeah to be a great yeah.



Deep Medhi (NSF/CISE)

47:09

By the way, I did not have a list today here, but we funded some very exciting projects last year, and we,

- The statistics program was very excited to see the sort of proposals There's a meeting that got funded If you want to go to a Nsf. Award search site. You can type the word Imr one,
- and probably my last name that you can catch it pretty easily. But if you are not being able to find what got funded, let me know. I'll be happy to provide that link to you.
- All right. So I see two more questions. Here, let me answer this question. Um,
- Maybe it looks like track one. A statistical innovation is a criteria. I'm wondering what if the project is strong in terms of I am, but does not innovate in the field of statistics, and it uses a simple, common, statistical method.
- You might then think about, maybe track one c. Depending on how you are positioning it, but you know it's really up to you.



- It may come up. You may want to look at the solicitation-specific criteria again to see what we say about subtract one A and one, c. And then according to position. So that would be okay.
- A very good question. We get? Do we consider Ml. Resource or their statistics in our categorization? We're considering Ml: under subtract one, c. Not one. A very good question. Let's see that's
- you know we can debate about it. It is part possibly done that way, so that we get a more focused research project coming in.
- Let's: Ah, would you please shared a link to previously funded proposal in the Qnh. Nicholas? Can you look up the link when you post it? It's a good question. I don't remember.



- 

Unknown Speaker

49:30

Look for you.



- 

Nicholas Goldsmith (NSF/CISE)

49:39

I think I found it. Did you find it so? This is the award. No, no, I think she wanted to do this funded proposal. Let me see. I don't know i'm going to



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Deep Medhi (NSF/CISE)

49:53

I still the I know what your question is, but i'm going to steal the previous Webinar link here previous Webinar.

- The other one.
- Let's see if I can do that. Quick.



- 

Unknown Speaker

50:17

It's It's time.



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Nicholas Goldsmith (NSF/CISE)

50:21

This one will get you a bunch of things. The first couple are all more funded in this program. It also gives you some funded under other programs. If you scroll down too far.



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Deep Medhi (NSF/CISE)

50:33

Uh, did you find that one, Nicholas, or



•

Yong Zeng

50:37

let me do two things there previous. Webinar, I will give you a quick. This is not a perfect search, but you will see if it's. I am at the beginning, and you'll be able to see it. So

- I find one from the website as send one.
- I find one from the website of the Imr. So that is one for the Browser
- Browser
- project funded by this program. So probably that is a easy way. So I just send a link to the to the check.



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Deep Medhi (NSF/CISE)

51:15

Okay, Good. I also. Okay, Good.



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Edsel Pena (NSF/DMS)

51:23

Yeah, It's a.

- I think it's the same that there
- you could simply as I am a her.
- Yeah, if you keep the imr, that's the one I posted it with, and you will see a few additional ones besides that. But as long as the title start with, I am at the beginning that kind of captures it, I think you at the end of it are not actually on that. So



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Deep Medhi (NSF/CISE)

51:56

So as you got that,

- Okay, So
- so that's basically it. So, hopefully, you get a chance to copy the links that we posted, and and we look forward to you submitting proposals.
- Me appreciate your asking question. That really helps everybody. So, because it recording is going to have that information.



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Edsel Pena (NSF/DMS)

52:24

Thank you again. Thank you to my colleague for joining today. You answer them all. Thank you.



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Yong Zeng

52:34

Thank you,



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Deep Medhi (NSF/CISE)

52:35

Tammy. Are you going to stop the recording, or do you want me to



•

Unknown Speaker

52:39

stop it?