

**Harvard Physics Department Colloquium**

*Monday, January 25, 2021, 4:30pm*

**Scientific espionage, open exchange, and American competitiveness**

**Xiaoxing Xi (Temple University)**

**Abstract:** Amid rapidly escalating tension between the United States and China, professors, scientists, and students of Chinese ethnic origin as well as those engaging in academic collaborations with China are under heightened scrutiny by the federal government. Law enforcement officials consider collaborating with Chinese colleagues “by definition conveying sensitive information to the Chinese.” In 2015, I became a casualty of this campaign despite being innocent. This experience gave me insights into the challenges Chinese scientists face and the immediate threat to the open environment in fundamental research. In this talk, I will urge the audience to rally around the [JASON Report](#) commissioned and endorsed by the NSF and speak up to defend Chinese colleagues against injustice, safeguard open fundamental research on university campuses, and protect American leadership in science and technology.

**Speaker Biography:** Xiaoxing Xi is Laura H. Carnell Professor of Physics at Temple University, and former chair of the Physics Department. Prior to joining Temple in 2009, he was Professor of Physics and Materials Science and Engineering at the Pennsylvania State University. He received his B.Sc. in physics from Peking University in 1982, and his PhD degree in physics from Peking University and Institute of Physics, Chinese Academy of Sciences, in 1987. After several years of research at Karlsruhe Nuclear Research Center, Germany, Bell Communication Research/Rutgers University, and University of Maryland, he joined the Physics faculty at Penn State in 1995. His research focuses on the materials physics of oxide, boride, and 2-dimensional dichalcogenide thin films. His notable contributions include early work on epitaxial thin films, heterostructures, and electric-field effect in high temperature superconductors, pioneering work on lattice dynamics in ferroelectric thin films and nanostructures, invention of hybrid physical-chemical vapor deposition for magnesium diboride, and development of atomic layer-by-layer laser molecular beam epitaxy for oxide thin films and interfaces. He is author of over 340 refereed journal articles and 3 U.S. patents in the area of thin films of high-T<sub>c</sub> superconductors and magnesium diboride. He is a Fellow of the American Physical Society. Since 2015, he has spoken out actively for open fundamental research and against racial profiling, for which he received the [2020 Andrei Sakharov Prize](#) from the APS.

**Zoom recording:** <https://youtu.be/OVXbiJifWzE>

**Comments during talk:**

- Yellow peril/Red scare 2.0
- Prof. Tao's case is still ongoing case, and his family has the following gofundme for the ongoing legal fight: <https://www.gofundme.com/f/Legal-Defense-Fund-for-Franklin-Tao>
- Eric Garner, died for selling cigarettes illegally
- <https://www.newsweek.com/gop-senator-tom-cotton-says-chinese-students-should-banned-studying-science-tech-us-colleges-1500282>
- The US can't come to terms with China being a global superpower, hence all the attacks against anything Chinese.

- To be fair, academia is traditionally quite sympathetic to the left.
- McCarthy was not too wrong in saying that.
- Yes academia by definition has the responsibility to promote rational thinking, facts, and intellectual collaboration, if those are what you mean by being left.
- I agree. That's what McCarthy and his followers cannot tolerate.
- From Stefan Maier to Everyone : I am currently involved in organizing a coordinated and continuous response from the scientific community to the arrests of Lieber and Chen. Please feel free to contact me, if you are interested in learning more, joining our efforts or to discuss. We would be more than happy to welcome more people helping to raise awareness and to prevent future arrests. You can reach me here: [s.maier@physik.rwth-aachen.de](mailto:s.maier@physik.rwth-aachen.de)
- A historical note: McCarthy deliberately chose 'communist collaboration' to amplify as a signature issue strictly to raise his own profile. (This is documented in David Halberstam's "The Best and the Brightest"). I think that this cynical exploitation of falsehood and lies for career purposes is relevant to today's scare.
- Thanks to Xiaoxing Xi for a fact-filled presentation that provides much food for thought. It is great that it is recorded and available for criticism. The U.S. scientific and engineering community, including the defense community, learn a lot from China's open publication in fields in which they are competitive or even ahead of the United States.
- Does the FBI face consequences for their false charges?
- Virtually never.
- FBI will only face consequence when we vote its boss out of office
- It seems that the best way to make them face consequences is to apply public pressure, which there is not a lot of at the moment.
- Regarding minorities, usually no unless the president acknowledges their challenges. One example is Lyndon Johnson, following voting rights in the south following the protests in Selma. For some historic precedence, one should read the Wikipedia article on J. Edgar Hoover.
- You have to educate people about McCarthyism, anti-China racism, which functions differently from anti-Black racism. Users do not know their own history very well.
- That's true. There's an excellent series on PBS titled "Asian Americans" that clearly illustrates the distinctions.
- America's foreign policy is all about maintaining hegemony at all costs, this is why anti-Chinese propaganda has become mainstream
- The best thinkers on this topic to date: <https://www.thedigradio.com/podcast/china-and-the-us-with-tobita-chow-and-jake-werner/>
- In terms of funding disclosure policies. What constitutes "non financial" isn't clear
- "America's foreign policy is all about maintaining hegemony at all costs..." is not a fact rather an opinion, which you are entitled to... as a rational thinker, it would be wise to distinguish among those two
- Yet we might be surprised by the number of people, even within the community of higher education, who more or less believe that "McCarthyism is the right thing to do".
- This is a great documentary:  
[https://www.youtube.com/watch?v=vAfeYMONj9E&ab\\_channel=TrueStoryDocumentaryChannel](https://www.youtube.com/watch?v=vAfeYMONj9E&ab_channel=TrueStoryDocumentaryChannel)

## **Praise & gratitude**

- Thanks Prof. Xi.
- Prof. Xi, is it possible to share your PPT? This is really powerful.
- thank you!
- This is a powerful talk Prof. Xi. Thank you!
- I've heard this talk before, and it's just as painful the second time... This makes me so sad...
- This is a very powerful talk
- Thank you Prof Xi for this powerful and wonderful presentation! Can we have access to this video later on?
- Stephanie Clayman: The lecture has been recorded and will be available on the Physics Department YouTube channel as soon as possible.
- Please send the Chat transcript to everyone by email. Thank you.
- Thanks for hosting this event.
- Super! Thank you so much!
- Thank you for hosting!

## **Questions**

- I'm grateful and proud to be an American exactly because we have always attracted and welcomed the best and brightest immigrants from all over the world. Now I'm devastated that our country is discouraging such immigration. As an immigrant yourself, what message would you have for would-be immigrants?
- Does life and research ever go back to normal after being hunted by the FBI?
- How can we be involved in supporting the JASON report? (+1)
- Do you think the atmosphere will change under Biden? How do you understand the relationship between the FBI and the White House?
- WSJ has an article - Justice Department Weighs Amnesty for Academics to Disclose Foreign Funding. Can you comment on this?
- It's not uncommon among highly educated people to equate collaborating with China to stealing/engaging in shady things. What's the best way to educate them?
- Do you believe the suspicions and risks are just as high for Asian American researchers? I have been warned by my father over the years to be careful even though I was educated almost entirely in the USA. Thank you.
- What advice would you give to people who want to help people who are currently being prosecuted? How can third parties help? Did any third parties help you while you were under prosecution and what kind of help from third parties was helpful or not helpful?
- This politically-motivated anti-Chinese sentiment has subversely snuck its way to members of the Chinese-American/Chinese-immigrant community as well. (Many US citizens of Chinese origin in the community from which I originate for example think Covid is China's fault, and don't sympathize with Gang Chen's case.) Can you comment on how to engage with such communities?
- Thank you for such a comprehensive report! Although new administration is in the office, FBI director Wray stays in the office. Safe to say, His effort of pushing China Initiative to punish Chinese and assumption of Chinese being spies will not change.

What can people do to reduce the impact of innocent Chinese American scientists. Because as you said, the current impact is people should not have anything to do with China, especially if you are Chinese heritage.

- Do you think that the new national security research memo that President Donald Trump issued shortly before leaving (NSPM-33) contain the basis for a reasonable and measured policy that balances openness with protecting national security? Would you like to see his recommendations adopted by federal agencies and the Biden administration?
- Prof. Xi did was not able to comment on this specific memo, but an audience member offered this: The presidential memo is the product of JCORE, an interagency White House committee led by Trump's science advisor, Kelvin Droegemeier, who held dozens of webinars with university stakeholders before the report was issued. it addresses all the issues the Xi has discussed--rules on disclosure, penalties for non-disclosure, and what agencies and universities need to do to protect federally funded research.
- What are the actionable items to protect ourselves? 1. Be careful when filing C&P and biosketch? 2. Speak up on this issue? 3. Stop calling/texting to my parents in China?
- If you haven't read this, this is a great article <https://theintercept.com/2020/02/02/fbi-chinese-scientists-surveillance/>
- Folks on the ground have to organize.
- <https://justiceisglobal.org/the-team/2019/3/8/toby-chow-director>
- <https://justiceisglobal.org/averting-a-new-cold-war>
- In which way do you think the universities should provide legal help to foreign researchers who have these concerns?
- Was there a time the FBI agents forced you to answer questions without a lawyer being present? If so, how did you navigate the situation?
- Prof. Xi is likely right about continuity of worries about China. He's certainly right about the unfairness of criminalizing conducting research while Chinese. Andrew Kim's research identified this problem prior to the Trump administration: <http://cardozolawreview.com/prosecuting-chinese-spies-an-empirical-analysis-of-the-economic-espionage-act/>
- Do you think the Biden administration, faced with a tall list of tasks, will take concrete actions to address the problems of the FBI China initiative? How could we advocate effectively to make politicians understand it? Compared with the resource of DOJ, individual academics are so vulnerable. Indiction alone, even without conviction, is sufficient to derail researchers' life and career forever.
- Could you please name some of the key group efforts/specific communities that we can join to support this cause?
- Have civil rights/civil liberties groups been helpful in your advocacy?
- Shall the scientific community speak up to request ending the 'China Initiative'?
- Yes. The Trump administration has driven home to scientists that they can do science and be political in political arenas.
- Do you know of any attempts by FBI or DOJ ever reaching out to university communities trying to get themselves educated about academic community? It is striking that the criminal complaint against Gang Chen shows a total lack of knowledge about how academia operates. I think at least universities should call for a conversation with the law

enforcement authority. Hopefully the Biden administration will at least begin to listen to universities.

- How could the education become both ways?
- Communication on this has been one way. The FBI has not recruited the China and scientific expertise it needs.

### **Prof. Xiaying Xi's replies**

About the information on community organizations, etc., the easiest way may be to visit the APA Justice website, which collects all kinds of related information in one place. The address is [apajustice.org](http://apajustice.org). The following are some thoughts on the chat transcript.

It is hard for people who have not experienced it to appreciate how difficult the situation is for people who are charged by the government. The shock, fear, humiliation, despair, . . . are all very overwhelming. It is important that they do not collapse in spirit and in health. Any way people can express support to them is very comforting. It is OK to send emails to them. They may not be able to read them right away, but when they do it cheers them up greatly. Don't expect them to respond, because they are forbidden to talk to potential witnesses. I talked about "What the government charges is not necessarily true." The stigma those who are charged carry is very heavy. When I read emails from colleagues, which said the person described in the indictment "is not the person I know," it meant a lot to me.

Respond to fundraising to help with their legal defense is very important. No justice can be done if the defendant does not have money to hire good lawyers, but the cost is astronomical. Hourly charges of over \$1000 add up very quickly, and scientists are normally not wealthy enough to have 100s of thousands dollars to spare for legal fees. Many pleaded guilty because of this.

I thank the audience for pointing me to NSPM-33. I will study it and form an opinion on it.

To protect oneself, being aware of the problem is the important first step. Doing the right thing in everything one does is to me the "of course" way people should act, but it is impossible to be a saint. Speak up to help change the bad policy is really the only way to have everyone protected.

I think universities have an important role in this affair. MIT's response is rare. Most universities are afraid of losing federal funding and worried about protecting themselves. To change this, all the concerned faculty should send emails to their administrators to make their opinions known. I am sure if a large portion of their faculty want them to take certain positions, they will listen.

When the FBI come to talk to you about your interactions with China, any lawyer would tell you "don't talk" or "don't talk without a lawyer." The Lieber case is noticeable because even his interaction with Harvard became part of the charge. It said his answers to Harvard "caused Harvard to make false statement" to the federal government. So, even talking to your universities can be dangerous. I know of a case: FBI thought a Chinese professor helped China's talent recruitment, and had the university counsel talk to the professor about it. The professor did not talk to the counsel, but had his lawyer talk to the university counsel. Eventually, the matter was cleared up between the lawyers. Having a lawyer provided a protection to the professor.