



The Complexity of Research: Artificial Intelligence

Key words/phrases that appear multiple times in NSF quantum-related active grants.



Global Nature of Research – Quantum

Active NSF awards to U.S. institutions that involve international activity.

Top Countries of Activity:

Germany
France
UK
Canada
Italy
China
Japan
Spain
Australia
Switzerland
Israel
Sweden
The Netherlands
Mexico
Brazil
South Korea
India
Poland

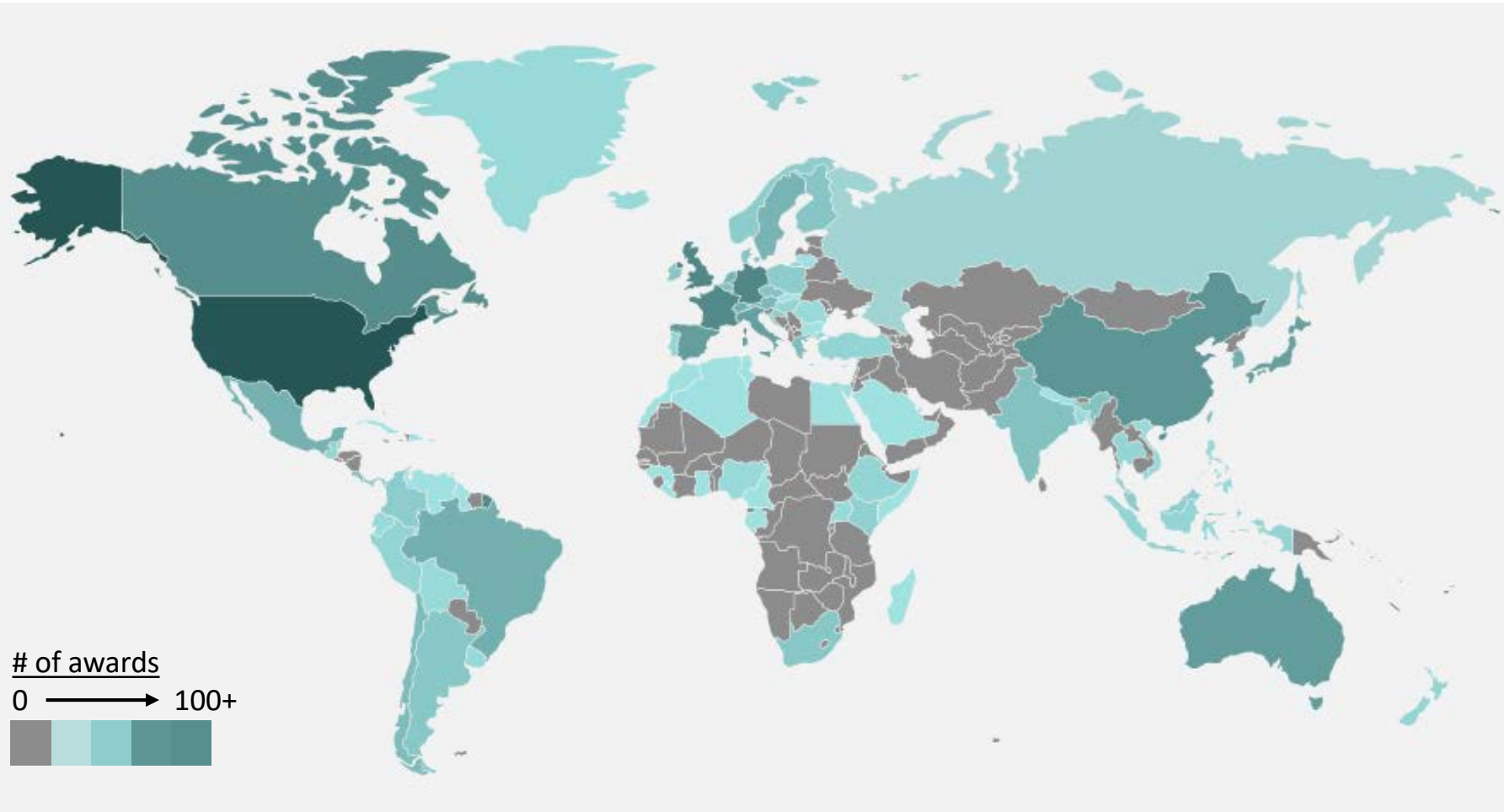
of awards

0 → 100+



Global Nature of Research – AI

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Top Countries of Activity:

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Spain
Japan
Italy
Israel
Switzerland
Mexico
Antarctica
Singapore



Ensuring the Integrity of Federally-Funded Research:

- Conflicts of interest/commitment
- Confidentiality of merit review process
- Protection of pre-publication data



Key Points of the Report of the Senate Committee on *Homeland Security and Governmental Affairs*

- America built a successful research enterprise on certain **values**: reciprocity, integrity, merit-based competition, and transparency.
- Some countries seek to **exploit America's openness** to advance their own national interests. The **most aggressive** has been **China**.
- China does this through **talent recruitment programs**.
- The federal government's **grant-making agencies** have done little to prevent this from happening, and the **FBI** and other federal agencies have not developed a coordinated response to mitigate the threat.
- These failures continue to **undermine the integrity of the American research enterprise** and **endanger our national security**.



NSF Actions to Ensure the Integrity of Federally-Funded Research

- Improved transparency/clarification for disclosure
- Standardization of U.S. citizenship requirements and foreign government talent recruitment program participation restrictions for the NSF workforce
- Risk assessment and analysis through JASON independent advisory group
- Communication and awareness with the scientific community
- Coordination with USG interagency partners



NSF Actions

to Improve Transparency / Clarification for Disclosure

- Unresolvable conflicts of interest are disclosed to NSF
- NSF determines capacity and overlap