

## NSF BIOGRAPHICAL SKETCH

NAME: Shen, Yang

ORCID: 0000-0002-4185-6089

POSITION TITLE & INSTITUTION: Full Professor, University of Rhode Island

### (a) PROFESSIONAL PREPARATION

INSTITUTION	LOCATION	MAJOR / AREA OF STUDY	DEGREE (if applicable)	YEAR YYYY
Nanjing University	Nanjing, Jiangshu	Tectonics and Geophysics	BS	1984
Inst. of Oceanology, Chinese Academy of Sciences	Qingdao, Shangdong	Marine Geophysics	MS	1987
Brown University	Providence, RI	Geophysics	PHD	1995

### (b) APPOINTMENTS

- 2008 - Full Professor, University of Rhode Island  
2003 - 2008 Associate Professor, University of Rhode Island  
1998 - 2003 Assistant Professor, University of Rhode Island  
1996 - 1998 Assistant Scientist, Woods Hole Oceanographic Institution  
1994 - 1996 Postdoctoral Scholar, Woods Hole Oceanographic Institution

### (c) PRODUCTS

#### Products Most Closely Related to the Proposed Project

1. Flinders AF, Shen Y. Seismic evidence for a possible deep crustal hot zone beneath Southwest Washington. *Sci Rep.* 2017 Aug 7;7(1):7400. PubMed PMID: [28785107](#); PubMed Central PMCID: [PMC5547095](#).
2. Zhang W, Shen Y, Zhao L. Three-dimensional anisotropic seismic wave modeling in spherical coordinate by a collocated-grid finite difference method. *Geophysical journal international.* 2012; 188:1359.
3. Hung S, Shen Y, Chiao L. Imaging seismic velocity structure beneath the Iceland hot spot: A finite frequency approach. *Journal of Geophysical Research: Solid Earth.* 2004; 109(B8).
4. Zhang W, Shen Y. Unsplit complex frequency-shifted PML implementation using auxiliary differential equations for seismic wave modeling. *Geophysics.* 2010; 75(4):T141-T154.
5. Gao H, Shen Y. Upper mantle structure of the Cascades from full-wave ambient noise tomography: Evidence for 3D mantle upwelling in the back-arc. *Earth and Planetary Science Letters.* 2014; 390:222-233.

#### Other Significant Products, Whether or Not Related to the Proposed Project

1. Shen Y, Forsyth D. Geochemical constraints on initial and final depths of melting beneath mid-ocean ridges. *Journal of Geophysical Research: Solid Earth.* 1995; 100(B2):2211-2237.
2. Shen Y, Solomon S, Bjarnason I, Wolfe C. Seismic evidence for a lower-mantle origin of the Iceland plume. *Nature.* 1998; 395(6697):62.
3. Shen Y, Solomon S, Bjarnason I, Nolet G, Morgan W, Allen R, Vogfjörd K, Jakobsdóttir S,

- Stefánsson R, Julian B. Seismic evidence for a tilted mantle plume and north–south mantle flow beneath Iceland. *Earth and Planetary Science Letters*. 2002; 197(3-4):261-272.
4. Shen Y, Sheehan A, Dueker K, de Groot–Hedlin C, Gilbert H. Mantle discontinuity structure beneath the southern East Pacific Rise from P-to-S converted phases. *Science*. 1998; 280(5367):1232-1235.
  5. Shen Y, Scheirer D, Forsyth D, Macdonald K. Trade-off in production between adjacent seamount chains near the East Pacific Rise. *Nature*. 1995; 373(6510):140.

**(d) SYNERGISTIC ACTIVITIES**

1. Service in Professional Organizations: Chair, International Professionals for the Advancement of Chinese Earth Sciences, 2010; AGU Committee for the Studies of Earth’s Deep Interior, 2000 – 2013; U.S. Ocean Bottom Seismography Instrument Pool Oversight Committee, 2016-2019
2. Organization of Professional Conferences: Spring AGU Meeting Program Committee, 2006; Organizer, Workshop on Improving Nuclear Explosion Monitoring, Baltimore, 2006; Organizer, Ocean Bottom Seismology Symposium, Portland, Maine, 2017
3. Other Professional Services: NSF proposal review panel, 2001, 2002, 2004, 2005, 2010, 2016, 2018
4. Public Outreach: Served as a science judge at the National Ocean Sciences Bowl, 1999; TV interview on Channel 10 for local earthquake in Rhode Island, 2003; Public lectures on earthquakes and tsunami, 2005; Appeared in the Discovery Channel Program that documented a research cruise to the epicenter of the earthquake that generated the 2004 tsunami in the Indian Ocean, 2005; Visited many villages in Tibet in the Northeast Tibetan Plateau Seismic Experiment, 2006-2009. At most of the ~50 seismic stations, we explained to villagers earthquakes and seismic hazards in the region.
5. Editorial Service: Member of Editorial Board, *Earthquake Science*, 2009-present; *Scientific Reports*, 2015-present; *Heliyon*, 2015-present