The New Madrid Seismic Zone

**Recommended papers:**

I-a1, I-b1, I-c1, II-a1, II-b4, II-c3

Some are available at [https://netfiles.uiuc.edu/tseng1/shared/New_Madrid/](https://netfiles.uiuc.edu/tseng1/shared/New_Madrid/)

**Complete reading list:**

**I. General background for New Madrid Seismic Zone (NMSZ)**

a. **Tectonic setting: rift system, stress regime and present seismicity**


b. **Present seismicity**


c. **Geophysical structures beneath NMSZ**


II. The 1811-1812 earthquake sequence in NMSZ

a. General overview


b. Earthquake recurrence intervals v.s. slip/strain rate


c. Mechanical models


III. Other related areas and issues

a. “Wabash” seismic zone (large earthquakes in S. IL)

b. Current sources and paths


c. Mantle reflector (personal communication with Prof. McBride)

d. Seismic reflection and refraction profiles


In addition, I would like to give you the links to some webpages that are related to New Madrid Seismic Zone:

http://bssa.geoscienceworld.org/cgi/content/full/91/6/1882
BSSA 2001 paper by Pollitz et al., providing an possible weakening mechanism related to deglaciation.

http://www.earth.northwestern.edu/people/sets/Texts/chareq.pdf
Stein and Newman 2004 paper about the bias of large earthquake sampling in the frequency-magnitude plot. (Bob mentioned about this issue in the seminar. Worth reading.)

http://www.hsv.com/genlintr/newmadrd/
Some nice photos and old papers are available.
http://www.eas.slu.edu/Earthquake_Center/NM/
Cooperative New Madrid Seismic Network.

http://www.eas.slu.edu/Earthquake_Center/NEW/MECHFIG/Plotnmd.html
Map of earthquake focal mechanisms around NMSZ.