

Other Publications, Reports, Presentations and Invited talks by Prof. Gopu Potty

A. Conference Proceedings, Abstracts

1. Sundaravadivelu, Varaprasad, and Gopu Potty, "Analysis of Moorings for subsurface buoy system," OCEANS-1987 Meeting, Nova Scotia, Canada
2. **Gopu Potty** and James Miller, "Broadband mode inversion for oceanographic and geoacoustic parameters," J. Acoust. Soc. Am. 102(5), 3062-3063, 1997.
3. **Gopu Potty** and James Miller, "Broadband geoacoustic inversion using mode travel time dispersion," J. Acoust. Soc. Am. 104(3), p1742, 1998.
4. J. E. Laliberte, G. R. Potty and J. H. Miller, "Analysis of modal dispersion in the Middle Atlantic Bight," J. Acoust. Soc. Am., 105(2), p1310, 1999.
5. **Gopu Potty** and James Miller, "Sediment tomography in the Middle Atlantic Bight," J. Acoust. Soc. Am. 106(4), p2133, 1999.
6. James Miller and **Gopu Potty**, "Geoacoustic Tomography," Fourth International Conference on Theoretical and Computational Acoustics (ICTCA'99), Trieste, Italy, May (1999).
7. James Miller and **Gopu Potty**, "Non-linear Optimization Techniques in Geoacoustic Tomography," First Workshop on Inverse Problems in Underwater Acoustics, Crete, Greece, May (1999).
8. **Gopu Potty** and James Miller, "Sediment tomography in the East China Sea," J. Acoust. Soc. Am. 108(5), p2536, 2000.
9. Gopu Potty and James Miller, "Inversion of sediment parameters in a shallow water range dependent environment," J. Acoust. Soc. Am. 107(5), p2776, 2000.
10. **Gopu Potty**, James Miller, Chuen-Song Chen and Colin Lazauski, "Preliminary results from the ASIAEX- East China Sea sediment tomography experiment," J. Acoust. Soc. Am. 110(5), p2724, 2001.
11. Colin Lazauski, **Gopu Potty**, James Miller, Chuen-Song Chen and, Peter H. Dahl " Sediment tomography in the East China Sea: Compressional wave speed and attenuation inversions from mode travel time dispersion and Airy phase measurements," J. Acoust. Soc. Am. 111(5), p2388, 2002.
12. **Gopu R. Potty**, James H. Miller, Colin J. Lazauski, James F. Lynch and Arthur Newhall, " Inversion of geoacoustic parameters in the South China Sea," J. Acoust. Soc. Am. 112(5), p2310, 2002.
13. Chuen-Song Chen, James H. Miller, Faye Boudreaux-Bartels, **Gopu R. Potty**, and Colin J. Lazauski, "Application of matching pursuit algorithm for dispersive acoustic signals," J. Acoust. Soc. Am. 112(5), p2421, 2002.
14. Colin J. Lazauski, James H. Miller, **Gopu R. Potty**, Chuen-Song Chen and Peter Dahl, " Sediment tomography in the East China Sea: Compressional wave speed and attenuation inversions from Airy phase dispersion measurements and time series correlation," J. Acoust. Soc. Am. 112(5),

p2309, 2002.

15. P. G. Cable, R. Gibson, Y. Dorfman, D. P. Knobles, T. W. Yudichak, R. Zhang, Z. Peng, F. Li, Z. Li, P. H. Dahl, J. H. Miller and **Gopu R. Potty**,” A comparison of East China Sea low frequency bottom scattering strength determinations,” J. Acoust. Soc. Am. 112(5), p2362, 2002.
16. D. P. Knobles, T. W. Yudichak, Peter Cable, Y. Dorfman, Peter Dahl, J. H. Miller, **Gopu R. Potty**, Renhe Zhang, Z. Peng, F. Li and Z. Li, “Analysis of time series data in the East China Sea generated from explosive sources,” J. Acoust. Soc. Am. 112(5), p2361, 2002.
17. Y. Dorfman, P.G. Cable, D. P. Knobles, T. W. Yudichak, R. Zhang, Z. Peng, F. Li, Z. Li, James H. Miller and **Gopu R. Potty**, “Separation of scattering mechanisms for the Asian Sea International Acoustics Experiment East China Sea reverberation measurements,” J. Acoust. Soc. Am. 112(5), p2254, 2002.
18. T. W. Yudichak, D. P. Knobles, P. Cable, Y. Dorfman, R. Zhang, Z. Peng, F. Li, Z. Li, Peter Dahl, James H. Miller and **Gopu R. Potty**, “Modeling of reverberation in the East China Sea,” J. Acoust. Soc. Am. 112(5), p2254, 2002.
19. **Gopu R. Potty**, , James Miller, “Broadband Non-linear Inversions in Shallow Water for Geoacoustic Parameters,” ICONS 2002- International Conference on Sonar – Sensors and Systems, Kochi, India (2002).
20. J. H. Miller, L. R. Bartek, **Gopu R. Potty**, P. H. Dahl, C. J. Lazauski, C-S. Chen, and K. Westhoff, “Geoacoustic measurements in the East China Sea,” Proceedings, The Asian Seas International Acoustics Experiment (ASIAEX) International Symposium, Chengdu, China, October 14-18, 2002, Technical Report, APL-UW TR 0201, December 2002, p17.
21. **Gopu R. Potty**, James Miller, Chuen-Song Chen and Colin Lazauski, “Broadband Non-linear Inversions in Shallow Water for Geoacoustic Parameters,” First International Conference on Inverse Problems: Modeling and Simulation, Fethiye, Turkey (2002) (Invited talk)
22. **Gopu Potty**, C-S Chen and James Miller, “Signal processing for long range sediment tomography,” National Symposium on Ocean Electronics- SYMPOL-2003, Cochin, India, (2003)
23. **Gopu Potty** and James Miller, “Attenuation inversions in the East China Sea,” J. Acoust. Soc. Am., 114(4), Pt. 2, (2003).
24. Gopu R. Potty, James H. Miller, Colin J. Lazauski, and Chuen-Song Chen, “Optimal search strategies for nonlinear, multi-parameter geoacoustic inverse problems,” J. Acoust. Soc. Am. **113**, 2190 (2003).
25. Integrated Acoustics Systems for Ocean Observatories, B. M. Howe, J. H. Miller, and the IASOO Committee, *Proceedings of the Scientific Submarine Cable 2003 Workshop*, University of Tokyo, 25-27 June 2003.
26. Integrated Acoustics Systems for Ocean Observatories, B. M. Howe, J. H. Miller, and the IASOO Committee, *Proceedings of IUGG, JSS03/03A/A13-002*, A.167, Sapporo, Japan, 2003.
27. **Gopu Potty** and James Miller, “Inversions for attenuation profiles using modal amplitude ratios,” J. Acoust. Soc. Am. 116, 2557 (2004).
28. G. Potty, S. Rajan and J. Miller, “Range dependent inversion for ocean bottom properties using modal dispersion curves,” J. Acoust. Soc. Am. **116**, 2557 (2004).
29. James Miller and **Gopu Potty**, “ Long Range Sediment Tomography in the East China Sea,” Invited Talk, Second International Workshop on Acoustic Inversion Methods and

- Experiments for Assessment of the Shallow Water Environment, Ischia, Italy, June 28-30, (2004).
30. **Gopu Potty** and James Miller, "Inversion of sediment parameters in Biot parameter space," *J. Acoust. Soc. Am.* **115**, 2399 (2004).
 31. James D. Nickila, Kevin B. Smith, and Gopu Potty, "Environmental influences on the frequency dependence of effective bottom attenuation," *J. Acoust. Soc. Am.* **115**, 2400 (2004).
 32. D. P. Knobles, R. A. Koch, J. H. Miller and **Gopu Potty**, "Evidence of non-linear frequency dependence of attenuation in the East China Sea Environment," *J. Acoust. Soc. Am.* **115**, 2551 (2004).
 33. M. Howe, J. H. Miller, and IASOO Committee (Integrated Acoust. Systems for Ocean Observatories Committee, Acoust. Society of America), "Science enabled by ocean observatory acoustics: The NSF ORION program", *J. Acoust. Soc. Am.* **115**, 2617 (2004).
 34. M. Howe, J. H. Miller, and IASOO Committee, "Science enabled by ocean observatory acoustics", Poster Presented at the ORION Workshop, Puerto Rico, 4-8 January 2004.
 35. James D. Nickila, Kevin B. Smith and **Gopu Potty**, "Sediment Layer Perturbation Influences on the Frequency Dependence of Effective Bottom Attenuation," *J. Acoust. Soc. Am.*, 117, p2496, 2005.
 36. **Gopu Potty** and James Miller, "Attenuation in the Sediment Layers in East China Sea," *J. Acoust. Soc. Am.*, 117, p2495, 2005.
 37. Sairajan Sarangapani, Gopu Potty, James H. Miller, Benjamin Reeder and Timothy K. Stanton, "Measurements and Modeling of the Target Strength of Divers," OCEANS Meeting, Brest, France, 2005 (to be presented).
 38. **Gopu Potty**, James Miller and Subramaniam Rajan, "Range dependent inversions using multiple broadband sources at East China Sea," "Underwater Acoustic Measurements - Technologies & Results" International Conference, Crete, Greece, June, 2005.
 39. Gopu Potty and James Miller, "A preliminary sediment model for the Shallow-Water-2006 Experimental site on the New Jersey Coast," *J. Acoust. Soc. Am.*, 118(3), p2040, 2005.
 40. Gopu Potty, James Miller and James Lynch, "Sediment Models for the East Coast based on a priori information, geological data and sediment inversions," *J. Acoust. Soc. Am.* **119**, 3226 (2006).
 41. Zoi-Heleni Michalopoulou, James Miller, Gopu Potty, "Tabu inversion in the East China Sea," *J. Acoust. Soc. Am.* **119**, 3224 (2006).
 42. James Miller, James Lynch, Gopu Potty and Kristy Moore, "Effect of shelfbreak front on acoustic propagation," *J. Acoust. Soc. Am.* **119**, 3346 (2006).

B. Technical Reports

1. Idichandy V. G, Ganapathy C, Vendhan C. P, Bhattacharya S. K, **Gopu Potty**, "Studies on Instrumentation for Integrity Monitoring of Fixed Offshore Structures," Vol. I and II, Ocean Engineering Center, Indian Institute of Technology, Madras, 1988.
2. James Miller and **Gopu Potty**, "Geoacoustic Database development for the ESME

Initiative,” Office of Naval Research, Ocean Atmosphere and Space Division, Annual Reports, Fiscal Years 2002 and 2003 (on CD ROM).

3. James Miller and Gopu Potty, “Long Range Sediment Tomography,” Office of Naval Research, Ocean Atmosphere and Space Division, Annual Reports, Fiscal Years 2001-2003 (on CD ROM).
4. James Miller and Gopu Potty, “Long Range Sediment Tomography – Developing advanced experimental techniques,” Office of Naval Research, Ocean Atmosphere and Space Division, Annual Reports, Fiscal Years 2003- 2005 (on CD ROM).
5. James H. Miller and **Gopu R. Potty**, “ASIAEX, East China Sea Experiment- URI Sediment Tomography Component Data Acquisition aboard R/V Melville: 29 May to 9 June 2001,” Technical Report Submitted to the Naval Undersea Warfare Center, Newport Division, Code 21 Submarine Sonar Department, August 14, 2004
6. James Miller, **Gopu Potty**, C-S Chen and Christopher Baxter, “Calibration of Scour Models using Advanced Sonar Technology for Bridge Safety,” Report submitted to the University of Rhode Island Transportation Center (URITC), August 30, (2004).

C. Invited Talks and seminars

1. Gopu Potty, “Sediment tomography using explosive sources,” Ocean Engineering Seminar Series, department of Ocean Engineering, University of Rhode Island, Narragansett, 2000.
2. Gopu Potty, "Acoustic Sediment Tomography using broadband sources," Ocean Engineering Seminar Talk, Ocean Engineering Center, Indian Institute of Technology, Madras (2001).
3. Gopu Potty and James Miller “Broadband non-linear inversions in shallow water for geoacoustic parameters” at the First International Conference on Inverse Problems- Modeling and Simulation, Fethiye, Turkey, July 14-21, 2002. (Invited Talk)
4. James Miller, Gopu Potty, C-S Chen and Christopher Baxter, “Calibration of Scour Models using Advanced Sonar Technology for Bridge Safety,” Transportation Engineering Seminar, University of Rhode Island Transportation Center (URITC), December 5, (2003).
5. James Miller and Gopu Potty, “Acoustic detection and Monitoring for transportation infrastructure safety,” Transportation Engineering Seminar, University of Rhode Island Transportation Center (URITC), December 3, (2004).
6. Gopu Potty, “Fundamentals of Acoustic Propagation in Ocean Sediments,” Ocean Engineering Seminar Series, Department of Ocean Engineering, University of Rhode

Island, Narragansett, 2004.

7. Gopu Potty, "Sediment tomography in the East China Sea," Marine Physical Laboratory- Scripps Institution of Oceanography (MPL-SIO) Seminar, March 11, (2004).
8. Gopu Potty, "Imaging Ocean Bottom Sediments using Acoustics," Invited Talk, Department of Geotechnical Engineering, University of Massachusetts (UMASS), Lowell, February 18, (2004).
9. Gopu Potty, " Long Range Sediment Tomography", Ocean Engineering Seminar Series, Stevens Institute of Technology, February 5, (2004)
10. Gopu Potty, " Long Range Sediment Tomography", Applied Ocean Physics and Engineering (AOPE) Seminar, Woods Hole Oceanographic Institution (WHOI), January 21, (2004).
11. Gopu Potty and James Miller, "Range dependent inversions using multiple broadband sources at East China Sea" at the Underwater Acoustic Measurements, Technologies and Results (International Conference), Crete, Greece, 28 June- 01 July, 2005. (Invited talk)
12. Gopu Potty and James Miller "Modeling 3-D variability and its effect on sediment tomography inversions," Shallow Water Analysis Meeting, University of Delaware, April 28-29, 2005 (Invited Talk)
13. Gopu Potty, " Long Range Sediment Tomography using Explosive Sources," Invited talk, Narragansett Chapter of Acoustical Society of America, 08 February, 2005.
14. Gopu Potty, "Underwater acoustics and sediment tomography," Seminar at Indian Institute of Technology (IIT), Kanpur, India, 03 May, 2006.