

## Curriculum Vitae

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George S. Piperakis

R & D Engineer in the Wave Propagation Group of the Institute of Applied and Computational Mathematics, FORTH.

### **Education:**

M.Sc. in Applied Mathematics, University of Crete, 2005.

Diploma in Mathematics, University of Crete, 1992.

### **Research Interests:**

*Ocean Acoustics:* Ocean Acoustic tomography, related acoustics propagation modeling and signal processing issues.

### **Research Projects:**

- 1993-94 Study of underwater acoustic characteristics of the Aegean Sea (AMFITRITI).
- 1993-96 A pilot tomography system for monitoring the Western Mediterranean Basin (THETIS-2).
- 1995-98 Acoustic Characterization of Undersea sediments to Initiate Commercial Applications (ACUSTICA).
- 1998-2001 Ocean Tomography Operational Package and Utilization Support (OCTOPUS).
- 2001-04 Performance Analysis of Underwater Acoustic Detection Systems (CASPER).
- 2005-09 Developing Arctic modeling and observing capabilities for long-term environmental studies (DAMOCLES).

### **Publications:**

#### *A. Journal publications:*

1. E.K. Skarsoulis, U. Send, G. Piperakis, P. Testor, Acoustic thermometry of the western Mediterranean basin, *Journal of the Acoustical Society of America* Vol. 116, pp. 790-798, 2004.
2. G.S. Piperakis, E.K. Skarsoulis, G.N. Makrakis, Rytov approximation of tomographic receptions in weakly range-dependent ocean environments, *Journal of the Acoustical Society of America*, **120** (1), pp. 120-134, 2006.
3. E.K. Skarsoulis, G.S. Piperakis, Use of acoustic navigation signals for simultaneous localization and sound-speed estimation, *Journal of the Acoustical Society of America*, Vol. 125, pp. 1384-1393, 2009.

*B. Publications in Conference Proceedings:*

1. Papadakis P.J. and Piperakis G.S. An Inverse Procedure for the Reconstruction of a Sea Bottom Consisting of Two Elastic Materials, *Proc. 3<sup>rd</sup> European Conf. on Underwater Acoustics* Vol. 2 pp 619-624, Heraklion, 1996.
2. E.K. Skarsoulis, G. Piperakis, Adaptive inversions from the Thetis-2 tomography experiment, *Proc 4<sup>th</sup> European Conf. On Underwater Acoustics*, Vol. 2, pp 599-604, Rome, 1998.
3. B.Woodward, J.C. Cook, A.D. Goodson, P.A.Lepper, A.L. Vyas, V.S. Balaji-Raj, M.I. Taroudakis, P.J. Papadakis, G.S. Piperakis. Acoustic Characterization of Undersea sediments to Initiate Commercial Applications (ACUSTICA), *Proc. 4<sup>th</sup> European Conference on Underwater Acoustics*, Vol. 2, pp 359-364, Rome, 1998.
4. U. Send, E. Skarsoulis, G. Piperakis, F. Gailard, D. Mauuary, Observing the western Mediterranean with acoustics, *Proc. Conf. The Ocean Observing System for Climate*, St. Raphael, October 1999.
5. E.K. Skarsoulis, U. Send, G. Piperakis, Ocean acoustic tomography in the western Mediterranean sea, *7th European Conf. on Underwater Acoustics*, Delft, 2004.
6. M. A. Kalogerakis, E. K. Skarsoulis, J. S. Papadakis, E. Flouri, G. Piperakis, R. Fountoulakis, A. Gamaletsos, D. Angelopoulos, An Integrated Computer System For Underwater Acoustic Detection Analysis, *UDT Europe 2004* Nice, France, 23-25 June, 2004.
7. E. K. Skarsoulis, G. S. Piperakis, G. N. Makrakis, Tangent linear and second-order models from the Born and Rytov approximations, *151st Meeting of the Acoustical Society of America* • Providence, Rhode Island • 5–9 June 2006.
8. H. Sagen, S. Sandven, E. Skarsoulis, G. Piperakis, M. Kalogerakis, P. Worcester, Damocles: The Fram Strait acoustic tomography system, *Proc. Underwater Acoustic Measurements 2007*
9. E. Skarsoulis, G. Piperakis, M. Kalogerakis, H. Sagen, Ocean acoustic tomography: Travel-time inversion in the eastern Fram Strait, *Proc. 9<sup>th</sup> Eur. Conf. Underwater Acoustics*, M. Zakharia (Ed.), pp. 19-23, 2008.
10. E. Skarsoulis, G. Piperakis: Sound-speed estimation from RAFOS transmission, *ACOUSTICS 08*. Paris.(2008).
11. Skarsoulis E.K., M. Kalogerakis, J. Papadakis, G. Piperakis, TRITON: a prototype software environment for underwater bistatic detection analysis, *Proc. UDT Europe*, 2009.

*C. Academic Works:*

1. G. S. Piperakis, *Ocean Acoustic Tomography – Influence of Medium Perturbations on Acoustic Arrival Times*. Master's Thesis, Joint Graduate Program of the Departments of Mathematics & Applied Mathematics, University of Crete, February 2005.