

## Publications - Olivier Carrière

### PEER-REVIEWED ARTICLES

- [A1] O. Carrière, J.-P. Hermand, J.-C. Le Gac, and M. Rixen. Full-field tomography and Kalman tracking of the range-dependent sound speed field in a coastal water environment. *Journal of Marine Systems. Special issue on MREA and Coastal Processes: Challenges for Monitoring and Prediction*, 78:S382–S392, 2009.
- [A2] O. Carrière, J.-P. Hermand, and J. V. Candy. Inversion for time-evolving sound-speed field in a shallow ocean by ensemble Kalman filtering. *IEEE J. Ocean. Eng.*, 34(4):586–602, Oct. 2009.
- [A3] O. Carrière and J.-P. Hermand. Feature-oriented acoustic tomography. *IEEE J. Ocean. Eng.*, (submitted).
- [A4] O. Carrière and J.-P. Hermand. Sequential geoacoustic inversion for mobile and compact source-receiver configuration. *J. Acoust. Soc. Am.*, (submitted).

### PROCEEDINGS

- [B1] Olivier Carrière, J.-P. Hermand, M. Meyer, and J. V. Candy. Dynamic estimation of the sound-speed profile from broadband acoustic measurements. In *Proceedings of OCEANS '07 IEEE/OES Europe Conference - Marine Challenges: Coastline to Deep Sea*, pages 1–6, Aberdeen, Jun. 2007. Oceanic Engineering Society, IEEE.
- [B2] O. Carrière and J.-P. Hermand. Dynamic estimation of the sound-speed field in Mediterranean coastal waters. In *Proceedings of OCEANS '08 MTS/IEEE KOBE-TECHNO-OCEAN '08 (OTO '08) Conference - Voyage toward the Future*, pages 1–6, Kobe, Apr. 2008. Marine Technology Society, IEEE.
- [B3] O. Carrière, J.-P. Hermand, and J. V. Candy. Range-resolving shallow water acoustic tomography by ensemble Kalman filtering. In *Proceedings of OCEANS '08 MTS/IEEE Quebec Conference - Oceans, Poles and Climate: Technological Challenges*, pages 1–5, Quebec City, QC, Sep. 2008. Marine Technology Society, IEEE.

- [B4] O. Carrière, J.-P. Hermand, and Y. Stéphan. Passive tomography in coastal areas: A feasibility study of the Ushant front monitoring. In *PASSIVE '08 OCEANS IEEE/OES Europe Conference - New Trends for Environmental Monitoring using Passive Systems*, pages 1–6, Hyères, French Riviera, Oct. 2008. Oceanic Engineering Society, IEEE.
- [B5] O. Carrière, J.-P. Hermand, and Y. Stéphan. Acoustic monitoring of the Ushant Front: a feasibility study. In *Proceedings of OCEANS '09 IEEE Bremen Conference - Balancing technology with future needs*, pages 1–5, Bremen, May 2009. Oceanic Engineering Society, IEEE.
- [B6] Y. Stéphan, J.-P. Hermand, and O. Carrière. Operational feasibility of an acoustic passive monitoring of the Ushant front. In J. S. Papadakis and L. Bjorno, editors, *Proceedings of the 3rd International Conference & Exhibition on Underwater Acoustic Measurements: Technologies and Results*, Nafplion, Jun. 2009. IACM/FORTH.
- [B7] E. Ferreira-Coelho, J.-P. Hermand, G. Peggion, and O. Carrière. An operational approach to sound speed data assimilation in high resolution ocean models. In J. S. Papadakis and L. Bjorno, editors, *Proceedings of the 3rd International Conference & Exhibition on Underwater Acoustic Measurements: Technologies and Results*, Nafplion, Jun. 2009. IACM/FORTH.
- [B8] O. Carrière and J.-P. Hermand. Fine-scale acoustic tomography of shallow water environments by bayesian filtering. In J. S. Papadakis and L. Bjorno, editors, *Proceedings of the 3rd International Conference & Exhibition on Underwater Acoustic Measurements: Technologies and Results*, Nafplion, Jun. 2009. IACM/FORTH.
- [B9] J.-P. Hermand, O. Carrière, M. Asch, M. Meyer, and M. Berrada. A comparison of variational and kalman filtering procedures for the assimilation of acoustic tomography data. In J. S. Papadakis and L. Bjorno, editors, *Proceedings of the 3rd International Conference & Exhibition on Underwater Acoustic Measurements: Technologies and Results*, Nafplion, Jun. 2009. IACM/FORTH.
- [B10] O. Carrière, J.-P. Hermand, L. Calado, A. C. de Paula, and I. C. A. da Silveira. Feature-oriented acoustic tomography: Upwelling at Cabo Frio (Brazil). In *Proceedings of OCEANS '09 MTS/IEEE Biloxi Conference - Marine Technology for Our Future: Global and Local Challenges*, pages 1–8, Biloxi, Oct. 2009. Marine Technology Society, IEEE.

- [B11] O. Carrière, J.-P. Hermand, L. Calado, A. C. de Paula, and I. C. A. da Silveira. Range-dependent acoustic tomography based on a feature model for monitoring the Cabo Frio upwelling (Brazil). In *Proceedings of OCEANS '10 IEEE Sydney Conference - Showcasing Advances in Marine Science and Engineering*, pages 1–7, Sydney, May 2010. IEEE.
- [B12] O. Carrière, J.-P. Hermand, and Y. Stéphan. Continuous acoustic monitoring of the Ushant front position. In *Proceedings of the European Conference on Ocean Coastal Observation: Sensors and Systems (OCOSS)*, pages 1–4, Brest, Jun. 2010. 7ème édition de la Semaine Internationale des Sciences et Technologies de la Mer (SEA TECH WEEK), SEE.
- [B13] E. F. Coelho, G. Peggion, O. Carrière, and J.-P. Hermand. Univariate high resolution assimilation of non-state parameters into ocean models. In *Proceedings of the Fifth European Conference on Computational Fluid Dynamics*, Lisbon, Jun. 2010. (ECCOMAS CFD 2010).
- [B14] L. P. Maia, O. Carrière, C. E. Parente, and J.-P. Hermand. Acoustic inversion with a frequency-domain version of the model-based matched filter processing. In T. Akal, editor, *Proceedings of the 10th European Conference on Underwater Acoustics*, pages 315–322. SUASIS - EAA, Jul. 2010.
- [B15] O. Carrière and J.-P. Hermand. Ensemble Kalman-filtered random walk for sequential geoacoustic inversion. In T. Akal, editor, *Proceedings of the 10th European Conference on Underwater Acoustics*, pages 525–532. SUASIS - EAA, Jul. 2010.
- [B16] J.-P. Hermand, O. Carrière, and Y. Stéphan. Feature-oriented acoustic tomography of a coastal thermal front. In *Proceedings of OCEANS '10 MTS/IEEE Seattle Conference - Innerspace: A Global Responsibility*, pages 1–4, Seattle, Sep. 2010. Marine Technology Society, IEEE.
- [B17] O. Carrière, J.-P. Hermand, and Y. Stéphan. Assimilation de données acoustiques: suivi du front d'Ouessant. *Annales Hydrographiques*, 7(776):4.1–4.7, Oct. 2010.
- [B18] L. P. Maia, O. Carrière, C. E. Parente, and J.-P. Hermand. Inversão acústica com uma versão no domínio da frequência do processamento model-based matched filter. In *Proceedings of the IX Encontro de Tecnologia em Acústica Submarina - IX ETAS - Ninth Underwater Technology Meeting, Instituto de Pesquisas da Marinha - IEAPM*, Nov. 2010.

## CONFERENCE ABSTRACTS

- [C1] O. Carrière, J.-P. Hermand, and Y. Stéphan. A simulation study of shallow water tomography for coastal monitoring. In *Proceedings of the Acoustics '08 Conference*. Société Française d'Acoustique (SFA), Acoustic Society of America (ASA), European Acoustics Association (EAA), Jun. 2008.
- [C2] O. Carrière and J.-P. Hermand. A sequential bayesian approach to vertical slice tomography of a shallow water environment. In *Proceedings of the Acoustics '08 Conference*. Société Française d'Acoustique (SFA), Acoustic Society of America (ASA), European Acoustics Association (EAA), Jun. 2008.
- [C3] O. Carrière, J.-P. Hermand, J. V. Candy, J.-C. Le Gac, and M. Rixen. Sound-speed field tracking in a range-dependent shallow water environment by ensemble Kalman filtering. In M. Rixen, M. Orlic, and J. Book, editors, *Rapid Environmental Assessment (REA) - Coastal Processes: Challenges for Monitoring and Prediction*, Sep. 2007.
- [C4] L. Périchon, O. Carrière, J.-P. Hermand, and M. Meyer. Control parameters inversion using genetic algorithms applied to numerical impedance synthesis for woodwinds. *J. Acoust. Soc. Am.*, 120, Nov. 2006.