## Forewords.

SAMPTA'09, the 8th international conference on Sampling Theory and Applications, was organized in Marseille, France, on May 18–22, 2009. The previous conferences were held in Riga (Latvia) in 1995, Aveiro (Portugal) in 1997, Loen (Norway) in 1999, Orlando (USA) in 2001, Salzburg (Austria) in 2003, Samsun (Turkey) in 2005 and Thessaloniki (Greece) in 2007.

The purpose of SAMPTA's is to bring together mathematicians and engineers interested in sampling theory and its applications to related fields (such as signal and image processing, coding theory, control theory, complex analysis, harmonic analysis, differential equations) to exchange recent advances and to discuss open problems.

SAMPTA'09 gathered around 160 participants from various countries and scientific areas, The conference benefited from the infrastructure of CIRM, the Centre International de Rencontres Mathématiques, an institute mainly sponsored by the french Centre National de la Recherche Scientifique (CNRS) and the French Mathematical Society (SMF).

After the conference, proceedings were published in electronic form. They consist in 4-page papers, which have been made available on a maintained archive site at

http://hal.archives-ouvertes.fr/hal-00495456/en and on the conference website at http://hal.archives-ouvertes.fr/SAMPTA09/en

Besides the proceedings, participants were invited to prepare an extended version of their SAMPTA contribution for a special issue of STSIP. Ten papers were accepted, covering a wide range of aspects of sampling theory (classical sampling, frame theory, wavelets, multi-resolution, operator approximation) and applications (impulse radio ultra-wide band, non-uniform sampling and filtering, multichannel sampling).

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Bruno Torrésani and Laurent Fesquet, Guest editors