

1. Record Nr.	UNINA9910774868403321
Autore	Ramalli Alessandro
Titolo	Development of novel ultrasound techniques for imaging and elastography : From Simulation to Real-Time Implementation // Alessandro Ramalli
Pubbl/distr/stampa	[Place of publication not identified] : , : Firenze University Press, , [2013] ©2013
Descrizione fisica	1 online resource (119 pages) : illustrations
Disciplina	616.07543
Soggetti	Ultrasonic imaging Elastography
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Sommario/riassunto	<p>Ultrasound techniques offer many advantages, in terms of ease of realization and patients' safety. The availability of suitable hardware and software tools is condicio sine qua non for new methods testing. This PhD project addresses medical ultrasound signal processing and seeks to achieve two scientific goals: the first is to contribute to the development of an ultrasound research platform, while the second is introducing and validating, through this platform, non-standard methods. During the thesis, the capabilities of the system were improved by creating advanced software tools, such as acoustic field simulators, and by developing echo-signals elaboration programs. In particular, a novel technique for quasi-static elastography was developed, in-vitro tested and implemented in real-time.</p>