

# Propositions

Belonging to the thesis:  
“Exploiting ultrasound harmonics”

G.M. Matte, 25 November 2010

1. The absolute level of the acoustic pressure can be deduced from the relative level of harmonics created during propagation.  
*(this thesis)*
2. Schlieren technique permits to take snapshots of ultrasound harmonic beams due to the non linear propagation of sound.  
*(this thesis)*
3. No matter which method you use to characterize a transducer, it will always respond according to its transfer function.  
*(this thesis)*
4. An “image” is a visual representation of a physical phenomenon  
*(this thesis)*
5. Using ultrasound harmonics improves the compromise between penetration and resolution of conventional ultrasound imaging systems for medical applications.  
*(this thesis)*
6. If the point spread function of a hypothetical imaging system was a Dirac function, the resulting image would have an infinite resolution.
7. It is easier to define the properties of an imaging system if you know what you are looking for.
8. Une musique qui ne peint rien n'est que du bruit  
*d'Alembert*
9. An accumulation of facts is no more a science than a heap of stones is a house  
*Henri Poincaré*
10. An expert is a man who has made all the mistakes which can be made in a very narrow field  
*R. Beurkens*
11. In Science, everything is possibly wrong  
*R.P. Feynman*