

Propositions belonging to the thesis

**“Advanced Computed Tomography for Cardiac Applications:
from Cardiovascular Diagnosis to Clinical Management”**

1. Low-dose coronary CT angiography matches the sensitivity of catheter-based angiography, has low radiation exposure, and is a potentially valid alternative to catheter angiography for triaging symptomatic patients with a clinical suspicion of CAD (von Ballmoos et al, Ann Intern Med 2011;154:413-20)
2. Advantages of 320-row CT angiography lie in improved image acquisition as well as reduced radiation dose compared to retrospectively gated older-generation CT acquisition techniques. (this thesis)
3. In the evaluation of coronary stents, optimal image quality is still highly dependent on stent diameter and strut thickness. (this thesis)
4. Heart rate control using beta-blocking medication remains essential for optimizing image quality and reducing radiation exposure. (this thesis)
5. CT angiography has the potential to serve as a gatekeeper for invasive coronary angiography to identify patients who are most likely to benefit from revascularization and exclude patients who can safely avoid invasive coronary angiography. (this thesis)
6. Hybrid imaging appears to offer superior diagnostic and prognostic information compared with stand-alone or side-by-side interpretation of data sets. (Gaemperli et al, Eur Heart J 2011;32:2100-8)
7. CT has the potential to assess both anatomy and physiology in a single imaging session and if successful, the technology could revolutionize the management of patients with symptomatic CAD (Vavere et al, J Cardiovasc Comput Tomogr 2011;5:370-81)
8. CT angiography should be used particularly cautiously in the evaluation of young individuals, especially women, for whom alternative diagnostic modalities that do not involve the use of ionizing radiation should be considered (Einstein AJ et al, JAMA 2007;298:317-23)
9. All that we are is the result of what we have thought. (Dhammapada)
10. Beautiful young people are accidents of nature, but beautiful old people are works of art. (E. Roosevelt)
11. Recycle, Reuse, Reduce or even better, just Refuse.
12. The ability to direct attention is the very root of judgment, character, and will and an education which includes this faculty would be the education *par excellence*. (William James)