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Professor Tim J. Senden
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Trained as a physical chemist Professor Senden is focused on developing imaging technologies to study complex physical and biological systems, chiefly using Atomic Force Microscopy and X-ray micro-tomography. Using these techniques he has had an opportunity to collaborate in fields such as; fluid flow in porous materials which includes studies in oil recovery, granular materials, wood composites and fluid flow in paper; nano-mechanical properties of single polymer chains; early evolution of vertebrate life (Devonian fish), including the earliest evidence for vertebrate copulation; and use of radioactive encapsulated nano-particles to aid medical diagnosis of diseases such as Deep Vein Thrombosis, liver therapy and diagnostic imaging. The diversity of these topics reflects his strong belief in cross-disciplinary collaboration and his interest in translating his research into practical applications. He has had the opportunity to commercially develop some of these research activities, and in particular is part of the spin-off company, *Digitalcore*, a venture to improve oil recovery.