

Local and global topology of minimal surfaces in \mathbb{R}^4

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The talk is about local and global topological aspects of minimal surfaces in \mathbb{R}^4 (I will recall the definitions and basic facts). I will discuss their branch points, the knots these define and their desingularization by immersed minimal disks. I will then move on to global minimal surfaces, mention one or two open problems and explain how knots appear also in this context. I will compare and contrast with local and global complex curves in \mathbb{C}^2 . Time permitting, I may say a word about symplectic minimal surfaces. Partly joint work with Marc Soret.