

**Nordine Mir: Artin approximation and Cauchy-Riemann geometry.**

In 1968, Artin proved his famous approximation theorem for systems of analytic equations. One question that naturally thereafter arises is whether the conclusion of Artin's approximation theorem is still preserved if the system of equations is coupled with a specific PDE. In 1978, Milman investigated such a question when the PDE consists of the standard Cauchy-Riemann operator in  $\mathbb{R}^{2n} \simeq \mathbb{C}^n$  : he showed that any formal solution of a system of real-analytic equations and of the standard Cauchy-Riemann equations in  $\mathbb{C}^n$  can be approximated (in the Krull topology) by a sequence of convergent solutions of the system of analytic and CR equations. In this talk, we will discuss recent results generalizing Milman's theorem when the standard Cauchy-Riemann operator in  $\mathbb{C}^n$  is replaced by the tangential Cauchy-Riemann operator associated to a real-analytic Cauchy-Riemann manifold.