

An overview on structurally unstable quadratic differential systems of codimension two

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In this talk I present the state of the art of the topological classification of the phase portraits of some families of structurally unstable quadratic differential systems of codimension two. The phase portraits are obtained topologically and I present only the ones which can be realized by such differential systems. I am going to show the sets of such systems possessing either a cusp point, or two finite saddle-nodes, or a finite saddle-node and an infinite saddle-node (obtained by the coalescence of two infinite singular points), or a finite saddle-node and an infinite saddle-node (obtained by the coalescence of a finite singular point with an infinite singular point). This is a joint project with Joan C. Artés, Regilene D.S. Oliveira and Marcos C. Mota.