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Section:

4. Algebraic Geometry

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CR construction of the semi-universal family of normal isolated singularities.
It is a natural idea to construct the semi-universal family of normal isolated singularities in terms of deformations of CR-structures on the boundary; what is called the Kuranishi program. The works of T. Akahori, R. O. Buchweitz-J. J. Millson and K. Miyajima solved it under the assumptions $\dim_{\mathbf{C}} V \geq 4$ and depth$\mathcal{O}_V \geq 3$. In this talk, I will accomplish the Kuranishi program without the above assumptions, by considering stably embeddable deformations of CR structures introduced by J. Bland and C. L. Epstein in the surface singularity case [J. Alg. Geom. **5** (1996), 277–368].
References: K. Miyajima, CR-construction of the flat deformations of normal isolated singularities, preprint 1998. ——, Deformation theory of CR-structures and its application to deformations of isolated singularities II, Advanced Studies in Pure Mathematics 25, Kinokuniya, 1997, 247–275.