

$$X \in \{ \tilde{E}_6, \tilde{E}_7, \tilde{E}_8 \}.$$

Thm (Kas - Schlesinger)

The semi-versal deformation of X is given by

$$\mathcal{X} := \left\{ (x, y, z, \underline{t}) \in \mathbb{C}^3 \times \mathbb{C}^M \mid f_x + \sum_{i=1}^M t_i p_i = 0 \right\}$$

$$\begin{array}{ccc} & \searrow & \\ & (x, y, z, \underline{t}) & \\ \downarrow & & \downarrow \\ \mathbb{C}^M & \rightarrow & \underline{t} \end{array}$$

where the p_i determine a \mathbb{C} -basis

of the vector space $\mathbb{C}[x, y, z]$

$$\text{and } \mu = \dim_{\mathbb{C}} \left(\mathbb{C}[x, y, z] \left/ \begin{array}{c} \left(\frac{\partial f_x}{\partial x}, \frac{\partial f_x}{\partial y}, \frac{\partial f_x}{\partial z} \right) \\ \left(\frac{\partial f_x}{\partial x}, \frac{\partial f_x}{\partial y}, \frac{\partial f_x}{\partial z} \right) \end{array} \right. \right).$$