

### Geometry of Quadrics

Properties of confocal quadrics were established until the latest mid *XIX<sup>th</sup>* century (Ivory, Monge, and others). However, as shown by Bianchi (isometric deformations of quadrics) and Jacobi (the geodesic flow on quadrics), some of these properties are essentially metric, and carry out to and influence surfaces isometric to quadrics and surfaces geometrically linked with these. We shall discuss Bianchi's deformations in  $\mathbf{C}^3$  of quadrics in  $\mathbf{C}^3$ .