

MONGE-AMPÈRE, EGUCHI-HANSON AND GRAVITONS AN OBSERVERS VIEWPOINT

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The singularity that lies at the centre of the Rossi example of a nonembeddable Cauchy Riemann structure also lies at the confluence of several streams of research, among them being nonlinear partial differential equations, invariant metrics, gravitons and a Penrose transform. In this series of talks, we will use the singularity of the Rossi example as our focal point to illustrate how these various streams come together and to suggest why Cauchy Riemann structures may provide a natural parameterization for the field. We will take the viewpoint of an outside observer to the field of thought, although at the end, we will indicate how an observer internal to the system might observe things. The talks will be essentially elementary in nature, although they will draw on background from a variety of sources.