

Title: Reduction Theorems in Contact Geometry of Second Order

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Abstract: We will discuss Reduction Theorems for PD manifolds of second order (systems of second order differential equations in J^2). First Reduction Theorem deals with the case where the system admits a non-trivial Cauchy characteristic systems, which covers the case of overdetermined involutive systems in 2 independent variables (Cartan's case). Second Reduction Theorem involves the two step reduction procedure, which covers the case of Goursat type equation in 2 independent variables.