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various generalizations of the latter. In the present book the tensor calculus of euclidean 3-space is developed and then generalized so as to apply to a Riemannian space of any number of dimensions. The tensor

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calculus as here developed is applied in Chapters III and IV to the study of differential geometry of surfaces in 3-space, the material treated being equivalent to what appears in general in the first eight chapters of my former

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geometry. The early chapters have many words and few equations. The definition of a tensor comes only in Chapter 6 – when the reader is ready for it. While this text maintains a consistent level of rigor, it takes great care to avoid



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calculus are presented including shape optimization, boundary perturbation of boundary value problems and dynamic fluid film equations developed by the author in recent years. Furthermore, the moving surfaces framework is used

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