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| Autore                  | Jean Frédéric   |
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| Soggetti                | System theory<br>Geometry, Differential<br>Artificial intelligence<br>Mathematics<br>Computer science<br>Systems Theory, Control<br>Differential Geometry<br>Artificial Intelligence<br>Mathematics, general<br>Computer Science, general   |
| Lingua di pubblicazione | Inglese   |
| Formato                 | Materiale a stampa  |
| Livello bibliografico   | Monografia  |
| Note generali           | Description based upon print version of record.   |
| Nota di bibliografia    | Includes bibliographical references at the end of each chapters.  |
| Nota di contenuto       | 1 Geometry of nonholonomic systems -- 2 First-order theory -- 3 Nonholonomic motion planning -- 4 Appendix A: Composition of flows of vector fields -- 5 Appendix B: The different systems of privileged coordinates.   |
| Sommario/riassunto      | Nonholonomic systems are control systems which depend linearly on the control. Their underlying geometry is the sub-Riemannian geometry, which plays for these systems the same role as Euclidean geometry does for linear systems. In particular the usual notions of approximations at the first order, that are essential for control purposes, have to be defined in terms of this geometry. The aim of these notes is to present these notions of approximation and their application to the motion planning problem for nonholonomic systems. |

