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""19. Linear structures on jet bundles""""20. Shifts and symmetrization""; ""21. Remarks on differential operators and symbols""; ""22. The exterior derivative""; ""V. Lie Theory""; ""23. The three canonical connections of a Lie group""; ""24. The structure of higher order tangent groups""; ""25. Exponential map and Campbell-Hausdorff formula""; ""26. The canonical connection of a symmetric space""; ""27. The higher order tangent structure of symmetric spaces""; ""VI. Diffeomorphism Groups and the exponential jet""; ""28. Group structure on the space of sections of  $T^{(k)}M$ "" ""29. The exponential jet for vector fields""""30. The exponential jet of a symmetric space""; ""31. Remarks on the exponential jet of a general connection""; ""32. From germs to jets and from jets to germs""; ""Appendix L. Limitations""; ""Appendix G. Generalizations""; ""Appendix: Multilinear Geometry""; ""BA. Bilinear algebra""; ""MA. Multilinear algebra""; ""SA. Symmetric and shift invariant multilinear algebra""; ""PG. Polynomial groups""; ""References""

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