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*Riemannian Holonomy and Algebraic Geometry*

To any Riemannian manifold of dimension $n$ is associated a closed subgroup of $\text{SO}(n)$, the holonomy group; this is one of the most basic invariants of the metric. A famous theorem of Berger gives a complete (and rather small) list of the groups that can appear. The construction of compact manifolds with holonomy smaller than $\text{SO}(n)$ leads to the study of special algebraic varieties (Calabi–Yau, complex symplectic or complex contact manifolds) for which Riemannian geometry raises interesting questions.