

[Šmíd, Dalibor](#)

The BGG diagram for contact orthogonal geometry of even dimension. (English)

[Zbl 1138.17310](#)

[Acta Univ. Carol., Math. Phys. 45, No. 1, 79-96 \(2004\).](#)

Summary: BGG sequences are sequences of invariant differential operators acting on sections of vector bundles associated to a principal bundle locally modeled by G/P , where G is a simple Lie group, P its parabolic subgroup. They contain a large and important class of invariant differential operators in parabolic geometries. The BGG diagram contains the representation-theoretical information on the BGG sequence. We study its structure for $G = \text{Spin}(2n, \mathbb{C})$ and its real forms, when P is given by crossing the second root in the Dynkin or Satake diagram of G . We show that for certain real forms and certain representations the shape of the BGG diagram differs from the shape for the complex case.

MSC:

[17B55](#) Homological methods in Lie (super)algebras

[17B20](#) Simple, semisimple, reductive (super)algebras

Full Text: [EuDML](#)