

DIFFERENTIAL GEOMETRY/PDE SEMINAR

WEDNESDAY, NOVEMBER 16, 2011

PADEL FORD C-36

3:50PM–5PM

Fefferman-type constructions for parabolic geometries

Matthias Hammerl

(UNIVERSITY OF VIENNA)

Parabolic geometries cover a wide class of geometric structures, including projective, conformal and CR structures. Interesting relations between different geometric structures can often be obtained by Fefferman-type constructions: this is a generalized procedure due to A. Cap that is analogous to the famous construction of a conformal structure on a circle bundle over a CR-manifold obtained by Ch. Fefferman. In the talk I will introduce the basic notions of parabolic geometries, describe the framework of Fefferman-type constructions and discuss closely related issues like holonomy reductions and special solutions to BGG-equations. I will discuss some interesting examples of such constructions in conformal spin geometry. As an outlook to possible extensions of the procedure I will present some recent results of joint work with K. Sagerschnig, [arXiv:1109.4231], where we succeeded in carrying out the construction in a case where a common normality assumption fails to hold.

For more information about this seminar, visit the DG/PDE Seminar Web page (from the Math Department home page, www.math.washington.edu, follow the link **Seminars, Colloquia, and Conferences**).

The University of Washington is committed to providing access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation contact the Disability Services Office at least ten days in advance at: 206-543-6450/V, 206-543-6452/TTY, 206-685-7264 (FAX), or dso@u.washington.edu.