

**Martin Čadek, Jiří Vanžura**

***On oriented vector bundles over CW-complexes of dimension 6 and 7***

Comment.Math.Univ.Carolinae 33,4 (1992) 727-736.

**Abstract:** Necessary and sufficient conditions for the existence of  $n$ -dimensional oriented vector bundles ( $n = 3, 4, 5$ ) over CW-complexes of dimension  $\leq 7$  with prescribed Stiefel-Whitney classes  $w_2 = 0$ ,  $w_4$  and Pontrjagin class  $p_1$  are found. As a consequence some results on the span of 6 and 7-dimensional oriented vector bundles are given in terms of characteristic classes.

**Keywords:** CW-complex, oriented vector bundle, characteristic classes, Postnikov tower

**AMS Subject Classification:** 57R22, 57R25, 55R25