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Associated cycles of Harish-Chandra modules play an important role in the representation theory of real reductive Lie groups. Suppose  $G_{\mathbb{R}}$  is a real form of a complex reductive group  $G$  and  $K$  is the complexification of a maximal compact subgroup of  $G_{\mathbb{R}}$ . The associated cycle gives, in some sense, an asymptotic measure of the  $K$ -types of a Harish-Chandra module, it also gives information about the global character of an admissible representation of  $G_{\mathbb{R}}$ . The associated cycle is of the form

$$AC(X) = \sum m_{\mathcal{O}} \cdot \overline{\mathcal{O}},$$

where the  $\mathcal{O}$  are nilpotent  $K$ -orbits in  $(\mathfrak{g}/\mathfrak{k})^*$  and the  $m_{\mathcal{O}}$  are nonnegative integers. This lecture will discuss methods to compute the associated cycle. The eventual goal is a general algorithm. Examples will be given. (Received July 18, 2017)