

# SPHERICAL ANALYSIS ON FUZZY LIE GROUPS

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Let  $G$  be a locally compact Lie group and  $\mathfrak{g}$  its Lie algebra. We consider a fuzzy analogue of  $G$ , denoted by  $\mathfrak{G}_f$  called a fuzzy Lie group. Spherical functions on  $\mathfrak{G}_f$  are constructed and a version of the existence result of the Helgason-spherical function on  $G$  is then established on  $\mathfrak{G}_f$ .