

1172-43-131 **Ji Li***, Macquarie University, Sydney, 2109, Australia. *Flag Hardy space theory on the Heisenberg group.*

In 1999, Washington University in Saint Louis hosted a conference on Harmonic Analysis to celebrate the 70th birthday of G. Weiss. In his talk in flag singular integral operators, E. M. Stein asked “What is the Hardy space theory in the flag setting?” In our recent paper, we characterise completely a flag Hardy space on the Heisenberg group. It is a proper subspace of the classical one-parameter Hardy space of Folland and Stein that was studied by Christ and Geller. Our space is useful in several applications, including the endpoint boundedness for certain singular integrals and representations of flag BMO functions. (Received August 23, 2021)