

1077-01-1248

Frédéric Brechenmacher* (frederic.brechenmacher@math.cnrs.fr), 27 rue Myrha, 75018 Paris, France. *Linear groups in Galois fields between France and the U.S.A. at the turn of the 20th century.*

Although prominent algebraists such as Dickson made extensive references to papers published in France, and despite the roles played by algebra and arithmetic in the development of the American mathematical community, our knowledge of the circulations of knowledge and practices between France and the United States at the beginning of the 20th century is still very limited. It is our aim to tackle such issues through the case study of a collective space of circulations in group theory at the turn of the 20th century. This collective can be introduced as a network of texts with two main characteristics. The first is a specific approach to finite group theory through general linear groups in Galois fields. This approach involved initially actors in Chicago and in Paris but quickly extended to actors in Stanford, and to other individuals. The other main characteristic is the role of shared references played by some works Hermite, Serret, Mathieu, and Jordan had published in the 1860s. The collective of texts thus revolved on a two-fold periodization. We will see that it can be understood as the space of circulation at the turn of the 20th century of a specific relation Jordan had established to the works of Galois in the 1860s. (Received September 18, 2011)