1166-11-25 **Damien Roy***, Department of Mathematics, University of Ottawa, 150 Louis Pasteur, Ottawa, Ontario K1N 6N5, Canada. *An introduction to Parametric Geometry of Numbers.*

Classical Geometry of Numbers studies the n successive minima of a fixed convex body with respect to a fixed lattice in real n-space. As W. Schmidt observed back in 1983, basic problems in Diophantine approximation deal instead with a parametric family of convex bodies with respect to a fixed lattice or with a fixed convex body with respect to a parametric family of lattices. The goal of Parametric Geometry of Numbers introduced by L. Summerer and W. Schmidt in two papers in 2009 and in 2013 is to describe how the n minima vary as a function of these parameters. The situation for a one parameter family is relatively well understood (and quite simple) in some cases, and this has been useful in proving new transference results relating various exponents of Diophantine approximation (generalizing the well-known Khintchine's transference theorem). In this talk, we will describe the general philosophy behind the theory, as well as some of the main results and conjectures. (Received February 01, 2021)