1078-32-192 HIROAKI TERAO (hterao00@za3.so-net.ne.jp), Department of Mathematics, Hokkaido University, Kita-10, Nishi-8, Kita-ku, Sapporo, Hokkaido 060-0810, Japan, and DAISUKE SUYAMA* (dsuyama@math.sci.hokudai.ac.jp), Department of Mathematics, Hokkaido University, Kita-10, Nishi-8, Kita-ku, Sapporo, Hokkaido 060-0810, Japan. Primitive derivations, Shi arrangements and Bernoulli polynomials. Preliminary report.

Let W be a finite irreducible real reflection group, which is a Coxeter group. A primitive derivation plays a crucial role in the theory of differential forms with logarithmic poles along the Coxeter arrangement. For example, we may describe the contact order filtration of the logarithmic derivation module using the primitive derivations. The contact order filtration is closely related to the Frobenius manifold structure of the orbit space. In particular, when W is a finite Weyl group, we have a one-parameter deformation of the contact order filtration by considering the extended Shi arrangements assoiated to the root systems. In there, the Bernoulli polynomials canonically appear in the expressions. (Received December 06, 2011)