Differentiability of non-Archimedean volumes

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If L is a line bundle on a projective variety Y of dimension n, the volume of L is defined as

$$\operatorname{vol}_Y(L) \coloneqq \lim_{m\in\mathbb{N}} \frac{h^0(L^m)}{m^n/n!}.$$

This can be continuously extended to the real Néron-Severi group of Y (which is a finite dimensional real vector space) and Boucksom, Favre and Jonsson proved that $\operatorname{vol}_Y(\cdot)$ is even C^1.

If Y is additionally a complex analytic variety, and L is equipped with a metric $\|\cdot\|$, Boucksom and Berman have proved similar properties for the asymptotic growth of the set of global sections s of L^m with $\|s\| \leq 1$ everywhere.

I will explain analogous results when Y is an analytic variety over a discretely valued non-Archimedean field, thus proving a formula conjectured by Kontsevich and Tschinkel. The main motivation is to extend some results of Boucksom, Favre and Jonsson about non-Archimedean Monge-Ampère equations. This is a joint work with Burgos, Gubler, Jell, Künnemann.