1163-11-101   **Alexandru Buium***, 4101 Lara Dr NE, Albuquerque, NM 87111, and **Lance E. Miller**.
Perfectoid spaces arising from arithmetic jet spaces. Preliminary report.

Using arithmetic jet spaces we attach perfectoid spaces to smooth schemes and we attach morphisms of perfectoid spaces to δ-morphisms of smooth schemes. We also study perfectoid spaces attached to arithmetic differential equations defined by some of the remarkable δ-morphisms appearing in the theory such as the δ-characters of elliptic curves and the δ-period maps on modular curves. (Received August 14, 2020)