

SEMINAR ON CAMPANA POINTS

MARTA PIEROPAN

This is a seminar on Campana points. We start by introducing the various different definitions present in the literature.

Talk 1 (Campana points on curves). Introduce the orbifold base of a fibration [Abr09, Definitions 2.1.3-2.1.4] and [Cam05, §1.2]. Introduce Campana points on curves [Abr09, §2.1.7] and [Cam05, §4.1]. Prove [Abr09, Proposition 2.1.8]. Give an overview of the orbifold Mordell conjecture [Cam05, §4.2], [Cam05, §3.4-3.5], [KPS22, Theorem 1.7]. Read also [Poo06] for inspiration.

Talk 2 (Campana points PSTVA). Introduce Campana orbifolds and Campana points. Cover [PSTVA21, §3.1, 3.2, 3.2.1] and [BBK⁺23, Example 3.8].

Talk 3 (Campana points on singular varieties). Compare the definitions of orbifold pairs and of Campana points from the papers [Str22, §2.1], [NS20, §2.1] and [MNS22, §2] (cf. [BBK⁺23, Example 3.8]). Does [Abr09, Proposition 2.1.8] hold in this general setting?

Talk 4 (Campana points AVA). Introduce Campana points as in [AVA18] and give an overview of the paper [AVA18].

Talk 5 (20 min) finish the proof of [AVA18]

Talk 6 (30 min) Proof of [Abr09, Proposition 2.1.8] and its generalization to singular varieties.

Talk 7 (Abramovich's constellations) Cover [Abr09, §2.2] in detail.

Talk 8 (Abramovich's firmaments) Cover [Abr09, §2.4] in detail.

Talk 9 (Darmon points and stacks, M -points). Introduce Darmon points as in [Poo06] and [MNS22, §2], clarify their relation to root stacks. If there is time, introduce M -points, and interpret the notions in [Poo06] in terms of M -points.

Talk 10 (Weak approximation for the Hilbert property) Based on [NS20].

Talk 11 (M -points and M -approximation on toric varieties) Based on upcoming work of Boaz Moerman.

Talk 12 (Campana points of bounded height) Based on [PS20, BBK⁺23, PSTVA21, Poo06].

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Email address: `m.pieropan@uu.nl`