PROGRAMME THÉMATIQUE

 \ll Points rationnels, courbes rationnelles et courbes entières sur les variétés algébriques \gg 3–28 juin, 2013

THEMATIC PROGRAM

"RATIONAL POINTS, RATIONAL CURVES AND ENTIRE HOLOMORPHIC CURVES ON ALGEBRAIC VARIETIES" JUNE 3–28, 2013

Logarithmic curve counts and birational invariance

Dan Abramovich*

abrmovic@math.brown.edu URL:www.math.brown.edu/~abrmovic/

Gromov–Witten theory is concerned with counting curves on varieties. A delicate question is how these curve counts behave under birational transformations. Several authors have addressed this question in special cases.

In joint work with Jonathan Wise, we show that logarithmic Gromov–Witten invariants, which count curves with given contact orders with a given toroidal divisor, are invariant under all toroidal birational transformations. This suggests that the logarithmic theory is well-suited for questions of birational invariance.

^{*}Department of Mathematics, Brown University, Box 1917, Providence, RI 02912, USA.