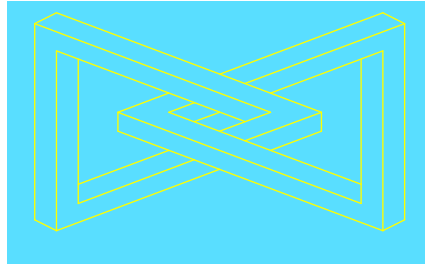


Polskie Towarzystwo Matematyczne – Oddział Warszawski
Instytut Matematyczny Polskiej Akademii Nauk
Międzynarodowe Centrum Matematyczne im. Stefana Banacha

zapraszają na



wykład–kolokwium

W czwartek, 15 maja 2014 roku o godz. 16.30
w Centrum Banacha, ul. Śniadeckich 8, sala 322

Edward Bierstone (Univ. of Toronto)

wyłosi wykład

*Resolution preserving
normal crossings singularities*

A normal crossings singularity means a transverse self-intersection. Given a singular variety X (defined over the complex numbers, for example), can we find a proper mapping F from a variety Y to X such that Y has only normal crossings singularities, and F preserves all normal crossings singularities of X ? The answer depends on whether normal crossings is understood in an algebraic or more general local-analytic sense.

An illuminating example is the pinch point or Whitney umbrella $X: z^2 + xy^2 = 0$, which has general normal crossings singularities along the nonzero x -axis. There is no proper birational mapping that eliminates the pinch point singularity at the origin without modifying normal crossings points.

So it makes sense to ask: Can we find the smallest class of singularities S with the following properties: (1) S includes all normal crossings singularities; (2) given X , there is a proper mapping F from Y to X such that Y has only singularities in S , and F preserves all normal crossings singularities of X ? For surfaces X , it turns out that S comprises precisely normal crossings singularities and the pinch point. We can describe S completely also in dimension three, but the problem is open in higher dimension. (Joint work with Sergio Da Silva, Pierre Lairez, Pierre Milman and Franklin Vera Pacheco.)

Przed wykładem, od godz. 16.00, zapraszamy na spotkanie przy kawie i herbacie w sali klubowej.

Organizatorzy