



12th International Workshop on Real and Complex Singularities Celebrating the 60th birthday of Shyuichi Izumiya | July 22-27 2012

This is to certify that

Anne Pichon

presented the Mini-Course, "*Bilipschitz geometry of complex singularities*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Toru Ohmoto

presented the Mini-Course, "*Singularities and characteristic classes for differentiable maps*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Abramo Hefez

presented the talk, "*On the topology of the polar curve*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Alexandre Fernandes

presented the talk, "*On choking horns in complex algebraic singularities*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Aryampilly Jayanthan Parameswaran

presented the talk, "*On the monodromy of regular maps from an affine surface to a curve*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Carles Bivià-Ausina

presented the talk, "*Lojasiewicz exponents and its relation with other analytic invariants*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Goo Ishikawa

presented the talk, "*Shyuichi Izumiya's mathematical works*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Javier Fernandez de Bobadilla

presented the talk, "*Nash conjecture on arc spaces*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Jorge Vitório Pereira

presented the talk, "*Rational maps preserving webs*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Jose Seade Kuri

presented the talk, "*On the topology of complete intersection germs on singular varieties*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Juan José Nuño-Ballesteros

presented the talk, "*Slicing corank 1 map germs from C2 to C3*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Marcelo José Saia

presented the talk, "*Multiplicities of modules and Newton polyhedra*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Masaaki Umehara

presented the talk, "*Differential geometry of surfaces with singularities*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Miriam Manoel

presented the talk, "*Invariant theory and relative symmetries of mappings*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Patrick Popescu-Pampu

presented the talk, "*The kite of a plane curve singularity*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Roberto Callejas-Bedregal

presented the talk, "*Lê cycles and Milnor classes*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Shihoko Ishii

presented the talk, "*Nash problem, arc spaces and applications*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Stanislaw Janeczko

presented the talk, "*Gravitational lensing and crystalline caustics*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Terence Gaffney

presented the talk, "*An Infinitesimal Approach to Bi-Lipschitz Stratifications*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Andras Szucs

presented the talk, "*Realizing homology classes by maps with mild singularities*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Bruna Oréfice Okamoto

presented the talk, "*The vanishing Euler characteristic of a determinantal variety germ and the Milnor number of a function*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Catarina Mendes de Jesus

presented the talk, "*Global theorem of Quine for maps between surfaces*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Daniel Lehmann

presented the talk, "*Ordinary algebraic curves*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

David J. A. Trotman

presented the talk, "*On the local geometry of definable stratified sets*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Farid Tari

presented the talk, "*On the geometry of the cross-cap in the Minkoswki 3space*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Federico Sanchez Bringas

presented the talk, "*Isometric reduction of the codimension*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

HANDAN YILDIRIM

presented the talk, "*One-parameter families of extrinsic differential geometries on hypersurfaces in hyperbolic space*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Haydee Aguilar-Cabrera

presented the talk, "*Seifert manifolds as links of real singularities*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Helge Möller Pedersen

presented the talk, "*Classification of metrically conical rational singularities*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Imran Ahmed

presented the talk, "*Invariants of Topological Relative Right Equivalences*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Isabel S. Labouriau

presented the talk, "*Fast and slow dynamics in nerve impulse*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Jean-Jacques Risler

presented the talk, "*On the total curvature of the real Amoeba*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Jiro Adachi

presented the talk, "*On contact round surgery*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Jorge Sotomayor

presented the talk, "*Singularities of Axial Curvature Configurations on Surfaces in R4 and their Bifurcations*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Jose Basto-Goncalves

presented the talk, "*Generalizations of holomorphic surfaces in 4-space*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Juan Antonio Moya Pérez

presented the talk, "*Topological triviality of families of map germs from R2 to R2*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Kentaro Saji

presented the talk, "*Singularities of surfaces swept by constant curvature curves*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

León Kushner Schnur

presented the talk, "*Discriminants of quartics and quintics with Maple*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Leonardo Meireles Câmara

presented the talk, "*Planar quasi-homogeneous singularities*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Liang Chen

presented the talk, "*On generic surfaces in Anti de Sitter 3-space*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Mahito Kobayashi

presented the talk, "*On the transverse structure to the critical locus of a planar stable map*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Marcela Silva

presented the talk, "*Bounds for the multiplicity of the special _ber of blowups of modules*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Mark Roberts

presented the talk, "*Singularities of spacecraft attitude control problems*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Masaki Kasedou

presented the talk, "*Asymptotic directions on spacelike surface of codimension 3 in de Sitter space*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Miguel Fernandez Duque

presented the talk, "*Elimination of resonances in codimension one foliations by blow-ups*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Minoru Yamamoto

presented the talk, "*Sphere eversion and their plane images (new method)*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Pedro de M. Rios

presented the talk, "*The Wigner caustic on shell and singularities of odd functions*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Peter Giblin

presented the talk, "*Affine equidistants and their evolution*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Raúl Oset Sinha

presented the talk, "*On the geometry of singular surfaces*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Saurabh Trivedi

presented the talk, "*Stratified transversality of holomorphic maps*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Sergey Agafonov

presented the talk, "*Singular at webs and Frobenius manifolds*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Takahiro Yamamoto

presented the talk, "*Topology of the set of singular values of stable maps between surfaces*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Takashi Nishimura

presented the talk, "*Whitney umbrellas and swallowtails*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Takashi Sano

presented the talk, "*Affine difierential geometry of plane curves*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Tomonori Fukunaga

presented the talk, "*The warping degree of a nanoword*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Toshizumi Fukui

presented the talk, "*Fronts of Whiney umbrella*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

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This is to certify that

Vincent Grandjean

presented the talk, "*The exponential map at a cuspidal singularity*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Walter D. Neumann

presented the talk, "*Lipschitz geometry of complex singularities in higher dimensions*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012





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This is to certify that

Zbigniew Jelonek

presented the talk, "*Reaching generalized critical values of a polynomial*", at the 12th International Workshop on Real and Complex Singularities, held in São Carlos, Brazil, from July 22-27, 2012.

São Carlos, July 27, 2012