

Institute for Geometry and its Applications  
School of Mathematical Sciences  
University of Adelaide

## Workshop on Complex Geometry

16–20 February 2009

The workshop will be held on the University of Adelaide's North Terrace campus, in the Napier Building, room LG23.

### Monday 16 February

9:00: Opening

9:10–10:00: Jean-Pierre Demailly, Université de Grenoble  
*Plurisubharmonic singularities and approximation theorems*

Coffee

10:30–11:20: Emma Carberry, University of Sydney  
*Almost-complex tori in the 6-sphere*

11:30–12:20: Paul Norbury, University of Melbourne  
*Magnetic monopoles on manifolds with boundary*

Lunch

2:00–2:50: Michael Eastwood, Australian National University  
*The Penrose transform for complex projective space*

Coffee

3:30–4:20: Adam Harris, University of New England  
*Aspects of the Kodaira-Spencer equation for complex structures*

4:30–5:20: Finnur Lárusson, University of Adelaide  
*Siciak-Zahariuta extremal functions, analytic discs and polynomial hulls*

### Tuesday 17 February

9:00–9:50: Jean-Pierre Demailly, Université de Grenoble  
*Analytic Zariski decomposition and related results in algebraic geometry*

Coffee

10:30–11:20: Franc Forstnerič, University of Ljubljana  
*A survey of the Oka principle and some recent applications I*

11:30–12:20: Gerd Schmalz, University of New England  
*Holomorphicity of functions annihilated by one singular vector field*

Lunch

2:00–2:50: Alexander Isaev, Australian National University  
*Classical symmetries of complex manifolds*

Coffee

3:30–4:20: Jürgen Leiterer, Humboldt-Universität  
*On the compactification of concave ends*

4:30–5:20: Dariush Ehsani, Humboldt-Universität  
*Integral representations on Henkin-Leiterer domains*

### Wednesday 18 February

9:00–9:50: Jean-Pierre Demailly, Université de Grenoble  
*Semicontinuity of singularities, estimates for Monge-Ampère operators, and existence of Kähler-Einstein metrics*

Coffee

10:30–11:20: Franc Forstnerič, University of Ljubljana  
*A survey of the Oka principle and some recent applications II*

11:30–12:20: Peter Ebenfelt, University of California, San Diego  
*Rigidity and super-rigidity for CR mappings into hyperquadrics I*

### Thursday 19 February

9:00–9:50: Amnon Neeman, Australian National University  
*Grothendieck duality, the modern way I*

Coffee

10:30–11:20: Franc Forstnerič, University of Ljubljana  
*A survey of the Oka principle and some recent applications III*

11:30–12:20: Peter Ebenfelt, University of California, San Diego  
*Rigidity and super-rigidity for CR mappings into hyperquadrics II*

Lunch

2:00–2:50: Kang-Tae Kim, Pohang University of Science and Technology  
*CR hypersurfaces with a CR contraction*

Coffee

3:30–4:20: Rod Gover, University of Auckland  
*The Fefferman space over a CR manifold and prolonged differential systems*

### Friday 20 February

9:00–9:50: Amnon Neeman, Australian National University  
*Grothendieck duality, the modern way II*

Coffee

10:30–11:20: Ilya Kossovskiy, Australian National University  
*Homogeneous hypersurfaces in  $\mathbb{C}^3$  associated with the automorphism group of the 4-dimensional CR-cubic*

11:30–12:20: Peter Ebenfelt, University of California, San Diego  
*Rigidity and super-rigidity for CR mappings into hyperquadrics III*

Lunch

2:00–2:50: Vladimir Ejov, University of South Australia  
*Degenerate hypersurfaces with a two-parametric family of automorphisms*

Coffee

3:30–4:20: John Erik Fornæss, University of Michigan  
*Finite type pseudoconvex domains*