WAG 07-08 Workshop

Surfaces: Geometry and Arithmetic

Monday 14 April – Friday 18 April 2008

Organizers/Instructors: Martin Bright, Ronald van Luijk, Samir Siksek, Damiano Testa

Programme

All talks and the presentations of solutions will be in Lecture Room B3.02 in the Zeeman Building

Monday 14th April 2008

8:30-9:20	**Registration** in the MRC – Room B1.37 opposite the Mathematics Institute Common Room
9:20-10:20	**Martin Bright** *Picard groups, definition and simple examples*
10:20-10:50	*Coffee in the Mathematics Institute Common Room*
10:50-11:50	**Ronald van Luijk** *Canonical divisor on hypersurface of degree d in P^n and on complete intersections; very ample divisors*
12:00-13:00	**Damiano Testa** *Classification and the minimal model program; the Hodge diamond*
13:00-14:00	*Lunch in the Mathematics Institute Common Room*
14:00-16:00	***Exercises session***
15:00-16:00	*Tea is available in the Mathematics Institute Common Room*
16:00-17:00	**Presentation of solutions**

Tuesday 15th April 2008

9:20-10:20	**Martin Bright** *Riemann-Roch on surfaces, genus and effectivity of (-1)-curves, adjunction formula*
10:20-10-50	*Coffee in the Mathematics Institute Common Room*
10:50-11:50	**Ronald van Luijk** *Picard groups of del Pezzo surfaces*
12:00-13:00	**Damiano Testa** *Root Lattices and their automorphism groups; Segre-Manin for del Pezzo surfaces I*
13:00-14:00	*Lunch*
14:00-16:00	***Exercises session***
15:00-16:00	*Tea is available in the Mathematics Institute Common Room*
16:00-17:00	**Presentation of solutions**

Wednesday 16th April 2008

9:20-10:20	**Damiano Testa** *Segre-Manin for del Pezzo surfaces II*
10:20-10-50	*Coffee in the Mathematics Institute Common Room*
10:50-11:50	**Ronald van Luijk** *Growth of rational points*
12:00-13:00	**Martin Bright** *Explicitly computed examples of Brauer-Manin obstruction through quadratic reciprocity*
	Afternoon off

Thursday 17th April 2008

9:20-10:20	**Ronald van Luijk** *Galois cohomology*
10:20-10-50	*Coffee in the Mathematics Institute Common Room*
10:50-11:50	**Damiano Testa** *Central simple algebras and Brauer groups*
12:00-13:00	**Martin Bright** *Reformulate easy examples the enlightening way*
13:00-14:00	*Lunch*
14:00-16:00	***Exercises session***
15:00-16:00	*Tea is available in the Mathematics Institute Common Room*
16:00-17:00	**Presentation of solutions**

Friday 18th April 2008

9:20-10:20	**Martin Bright** *Harder Brauer-Manin obstruction examples with given algebra*
10:20-10-50	*Coffee in the Mathematics Institute Common Room*
10:50-11:50	**Damiano Testa** *How to find the algebra from Galois cohomology?*
12:00-13:00	**Ronald van Luijk** *Further directions. Brauer-Manin is not the only one, when is it?*
13:00-14:00	*Lunch*
14:00-16:00	***Exercises session***
15:00-16:00	*Tea is available in the Mathematics Institute Common Room*
16:00-17:00	**Presentation of solutions**

If you have any questions during the Workshop please see Yvonne Collins in Room B1.37 which is opposite the Common Room

2007/08 Warwick EPSRC Symposium on Algebraic Geometry

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