RESEARCH WORKSHOP

23rd–29th of April 2009

Organisers: D. R. Heath-Brown, A. MacIntyre, Yu. I. Manin,
Yu. V. Matiyasevich, and B. Z. Moroz

Thursday, April 23rd

10–11 a.m.	Yu. I. Manin, Mordell–Weil problem for cubic surfaces: in search of a model-theoretic approach.
11:30–12:30 p.m.	T. Wooley, Rational points on complete intersections, and mean values of Weyl sums (joint work with P. Salberger).
2:30–3 p.m.	B. Viray, Failure of the Hasse principle for Enriques surfaces.
3:30–4:00 p.m.	P. Moree, The Erdös–Moser equation revisited, using continued fractions (joint work with Y. Gallot and W. Zudilin).

Friday, April 24th

9–10 a.m.	V. Abrashkin, A semistable case of a generalization of the Shafarevich conjecture.
10:30–11:30 a.m.	P. Corvaja, Recent results on integral points on surfaces.
1:30–2 p.m.	N. Billerey, Irreducibility criterion for elliptic Galois representations.
2:15–2:45 p.m.	J.-H. Evertse, Effective results on points of certain subvarieties of tori (joint work with A. Berczes, K. Györy, and C. Pontreau).
3:15–3:45 p.m.	D. Loughran, Manin's conjecture for a singular sextic del Pezzo surface.
4–4:30 p.m.	Ch. Samuels, The collection of metric Mahler measures.

Sunday, April 26th

9–10 a.m.	A. MacIntyre, Schanuel's conjecture and systems of exponential equations over the reals and the complexes.
10.30–11:30 a.m.	L. Dieulefait, The proof of Serre's conjecture: the ubiquity of modular forms.

1:30–2 p.m. J. Zahid, Simultaneous zeros of a cubic and a quadratic form over the p-adic numbers.

2:30–3 p.m. A. Ustinov, On the distribution of Frobenius numbers.

3:15–3:45 p.m. A. Schinzel, Equal values of trinomials (joint work with G. Peter and A. Pintér).

4–4:30 p.m. M. Carrizosa, Relative Lehmer problem for CM abelian varieties.

Monday, April 27th

9–10 a.m. P. Salberger, On the density of rational points on curves and Fermat hypersurfaces.

10:30–11:30 a.m. D. R. Heath-Brown, Zeros of systems of $\mathfrak{p}$-adic forms.

1:30–2 p.m. Yu. Yasufuku, Vojta's conjecture on blowups and the *abc*.

2:15–2:45 p.m. J. Brüdern, Pairs of undenary cubic forms.

3:15–3:45 p.m. H. Godinho, Additive equations over $\mathfrak{p}$-adic fields.

4–4:30 p.m. N. Jones, Serre curves in one-parameter families (joint work with A. Cojocaru and D. Grant).

Tuesday, April 28th

9–10 a.m. J. L. Golliot-Thélène, Quadrics over function fields in one variable over a $\mathfrak{p}$-adic field.

10:30–11:30 a.m. J. Pila, Rational points of definable sets and Diophantine problems.

1:30–2 p.m. A. Várilly-Alvarado, Cox rings of big rational surfaces (joint work with D. Testa and M. Velasco).

2:15–2:45 p.m. D. Harari, Some Poitou–Tate exact sequences.

3:15–3.45 p.m. V. Blomer, On a sextenary cubic form (joint work with J. Brüdern).

4–4.30 p.m. N. Niedermowwe, An asymptotic formula for the number of S-integral points of bounded height in $\mathbb{P}^n$ with respect to a quadric.

Wednesday, April 29th

9–10 a.m. K. Györy, Perfect powers in products with terms from an arithmetic progression.

10:30–11:30 a.m. A. Skorobogatov, The Brauer group of Kummer surfaces and torsion of elliptic curves.

1:30–2 p.m. R. Dietmann, Linear spaces on rational algebraic hyper-surfaces.

2:30–3 p.m. G. Marasingha, Almost prime roots of ternary quadratic forms.

3:15–3:45 p.m. M. P. Harvey, On cubic forms in seven variables.