

Services to the mathematical community

I. Refereeing

A. **Moscow Journal of Combinatorics and Number Theory**, Moscow, Russia

[1] **MJCNT**, Masanari Kida,
Counting formulas for CM-types (Preprint 2019),
(AMS MSC 11G15, 14K22)

B. **New York Journal of Mathematics**, Albany, USA

[1] **NYJM**, Christian Maire,
Genus theory and governing fields (Preprint 2018),
(AMS MSC 11R37, 11R29, 11R45)

C. **Acta Arithmetica**, Poznan, Poland

[1] **170216**, Antonio Lei,
Estimating class numbers over metabelian extensions (Preprint 2017),
(AMS MSC 11R23, 11R29)

[2] **170411**, Enver Ozdemir and Ergun Yaraneri,
Class numbers of real quadratic fields I (Preprint 2017),
(AMS MSC 11E16, 11R29, 11R11, 11Y05)

D. **International Journal of Number Theory**, World Scientific, Singapore

[2] **IJNT-D-18-00365**, Sophie Marques and Jacob Ward,
The Riemann-Hurwitz formula for a cubic extension of a global field (Preprint 2018),
(AMS MSC 11T22, 11R32, 11R16, 11T55, 11R58)

[1] **IJNT-D-10-00195**, L Houssain El Fadil,
Explicit factorization of prime integers and p -integral bases of quintic number fields defined by $X^5 + aX^2 + b$ (Preprint 2010),
(AMS MSC 11R21, 11R29, 11R04, 11Y40)

E. **Asian-European Journal of Mathematics**, World Scientific, Singapore

[1] **AEJM**, Abdelmalek Azizi, Abdelkader Zekhnini, and Mohammed Taous,
On the strongly ambiguous classes of $k|\mathbb{Q}(i)$ where $k = \mathbb{Q}(\sqrt{2p_1p_2}, i)$ (Preprint 2013),
(AMS MSC 11R37, 11R27, 11R29, 11R11, 11R16, 11R20)

F. **Journal of Algebra and its Applications**, World Scientific, Singapore

[1] **JAA**, Abdelmalek Azizi, Abdelkader Zekhnini, and Mohammed Taous,
Coclass of $\text{Gal}(k_2^{(2)}|k)$ for some fields $k = \mathbb{Q}(\sqrt{p_1p_2q}, \sqrt{-1})$ with 2-class groups of type $(2, 2, 2)$ (Preprint 2014),
(AMS MSC 11R37, 11R32, 11R29, 11R11, 11R16)

G. **British Journal of Mathematics and Computer Science (BJMCS)**,
Sciencedomain International, Hooghly, India

[1] **Ms-BJMCS-31510**, Ramamonjy Andriamifidisoa,
Multicyclic codes and algebraic dynamical systems (Preprint 2017),
(AMS MSC 11T71, 13F25, 16D25, 16S34, 20C05)

II. Reviews

A. Canadian Mathematical Society (CMS)

[1] Samuel A. Hambleton and Hugh C. Williams,
Cubic fields with geometry,
CMS Books in Mathematics, Springer, 2018,
(AMS MSC 11D25, 11D57, 11E99, 11G35, 11H06, 11H50, 11R16, 11Y40, 11Y50, 11Y65,
14E05, 14Q10, 15B35)

B. Mathematical Reviews (MR), Ann Arbor, Michigan, USA

Languages statistics: 5 Russian, 5 French, 1 Spanish, 36 English.

[47] No. 3999456, **2019**, Abdelmalek Azizi, Idriss Jerrari, Abdelkader Zekhnini, and Mohammed Talbi,
On the 2-class field towers of some imaginary quartic cyclic number fields,
Colloquium Mathematicum **158** (2019), no. 1, 103–118,
(AMS MSC 11R37, 11R11, 11R16, 11R29, 11R32)

[46] No. 3952015, **2019**, Claus Fieker, Tommy Hofmann, and Carlo Sircana,
On the construction of class fields,
ANTS XIII, Proceedings of the Thirteenth Algorithmic Number Theory Symposium,
The Open Book Series **2** (2019), 239–255,
(AMS MSC 11R37, 11Y40)

[45] No. 3908698, **2019**, Elliot Benjamin and Chip Snyder,
On the rank of the 2-class group of the Hilbert 2-class field of some quadratic fields,
Quart. J. Math. **69** (2018), 1163–1193,
(AMS MSC 11R37, 11R11, 11R29, 20D15, 20F12)

[44] No. 3873132, **2018**, David S. Dummit and John Voight,
The 2-Selmer group of a number field and heuristics for narrow class groups and signature ranks of units,
Proc. London Math. Soc. **117** (2018), no. 3, 682–726,
(AMS MSC 11R29, 11R27, 11R45, 11Y40)

[43] No. 3807875, **2018**, Denis Dmitrievich Kiselev,
Ultrasolvable coverings of some nilpotent groups by a cyclic group over number fields and related questions (Russian),
Ser. Math. **82** (2018), no. 3, 69–89,
(AMS MSC 12F12, 11R37, 20D15, 20D20)

- [42] No. 3747195, **2018**, Alexey Anatolievich Shlepkin,
On a sufficient condition for the existence of a periodic part in a Shunkov group (Russian),
 Izvestiya Irkutskogo Gosudarstvennogo Univ., Ser. Math. **22** (2017), 90–105,
 (AMS MSC 20D05, 20D06, 20D20)
- [41] No. 3744061, **2018**, Viktor Ivanovich Zenkov,
*On the intersection of two nilpotent subgroups in a finite group
 with socle $\Omega_8^+(2)$, $E_6(2)$ or $E_7(2)$* (Russian),
 Siberian Electronic Math. Reports **14** (2017), 1424–1433,
 (AMS MSC 20D05, 20D06, 20F18)
- [40] No. 3686942, **2018**, Wenbin Guo and Andrej Sergeevich Mamontov,
On groups whose element orders divide 6 and 7 (Russian),
 Sibirsk. Math. Zh. **58** (2017), no. 1, 88–94,
 (AMS MSC 20F50, 20D15, 20F05)
- [39] No. 3668767, **2017**, Cyril Demarche, Giancarlo Lucchini Arteché, and Danny Neftin,
The Grunwald problem and approximation properties for homogeneous spaces,
 Ann. Inst. Fourier, Grenoble **67** (2017), no. 3, 1009–1033,
 (AMS MSC 11R34, 11E72, 14G05, 14M17)
- [38] No. 3604560, **2017**, Raimundo Bastos and Pavel Shumyatsky,
A sufficient condition for the nilpotency of the commutator subgroup (Russian),
 Sibirsk. Math. Zh. **57** (2016), no. 5, 978–980,
 (AMS MSC 20D15, 20D25, 20F10, 20F16, 20F18)
- [37] No. 3596397, **2017**, Aissa Derhem, Mohamed Talbi, Mohammed Talbi,
On some metabelian 3-groups and applications I,
 Gulf J. Math. **4** (2016), no. 4, 171–181,
 (AMS MSC 11R37, 11R20, 11R29, 20D15)
- [36] No. 3557585, **2017**, Abdelmalek Azizi, Abdelkader Zekhnini, Mohammed Taous,
On the strongly ambiguous classes of some biquadratic number fields,
 Math. Bohemica **141** (2016), no. 3, 363–384,
 (AMS MSC 11R37, 11R11, 11R16, 11R20, 11R27, 11R29)
- [35] No. 3404031, **2016**, Andrew Wiles,
On class groups of imaginary quadratic fields,
 J. London Math. Soc. (2) **92** (2015), 411–426,
 (AMS MSC 11R29)
- [34] No. 3368167, **2015**, Song Wang,
Grunwald-Wang theorem, an effective version,
 Sci. China Math. **58** (2015), no. 8, 1598–1606,
 (AMS MSC 22E99, 11F99)
- [33] No. 3276340, **2015**, Jordi Guàrdia, Jesús Montes, and Enric Nart,
Higher Newton polygons and integral bases,
 J. Number Theory **147** (2015), 549–589,
 (AMS MSC 11R04, 11Y40, 14G15, 14H05)

- [32] No. 3240816, **2014**, Jean-François Biasse and Claus Fieker,
Subexponential class group and unit group computation in large degree number fields,
LMS J. Comput. Math. **17** (Special issue A) (2014), 385–403,
(AMS MSC 54C40, 14E20, 46E25, 20C20)
- [31] No. 3198753, **2014**, Francisco Diaz y Diaz and Eduardo Friedman,
Signed fundamental domains for totally real number fields,
Proc. London Math. Soc. (3) **108** (2014), 965–988,
(AMS MSC 11R27, 11R42, 11R80, 11Y40)
- [30] No. 3165518, **Oct 2014**, 81–83, Abdelmalek Azizi and Ali Mouhib,
*On the Hilbert 2-class field tower of some abelian 2-extensions
over the field of rational numbers*,
Czechoslovak Math. J. **63(138)** (2013), no. 4, 1135–1148,
(AMS MSC 11R11, 11R29, 11R37)
- [29] No. 3105943, **May 2014**, 131–133, Jordi Guàrdia, Jesús Montes, and Enric Nart,
A new computational approach to ideal theory in number fields,
Found. Comput. Math. **13** (2013), 729–762,
(AMS MSC 11Y40, 11Y05, 11R04, 11R27)
- [28] No. 3059109, **Dec 2013**, p. 144, Alejandro Aguilar-Zavoznik, Mario Pineda-Ruelas,
Units of pure quartic fields of the form $\mathbb{Q}(\sqrt[4]{p})$ with a rational prime $p \equiv 7 \pmod{16}$,
Far East J. Math. Sci. **71** (2012), no. 2, 329–348,
(AMS MSC 11R27, 11R11, 11R16)
- [27] No. 2981398, **Jun 2013**, 177–178, Amandine Leriche,
Cubic, quartic and sextic Pólya fields,
J. Number Theory **133** (2013), no. 1, 59–71,
(AMS MSC 11R16, 11R20, 11R04)
- [26] No. 2948877, **Apr 2013**, 98–99, Alex Bartel,
On Brauer-Kuroda type relations of S -class numbers in dihedral extensions,
J. reine angew. Math. **668** (2012), 211–244,
(AMS MSC 11R29, 11R20, 19A22, 20C10)
- [25] No. 2922336, **Jan 2013**, 360–361, Francisco Diaz y Diaz and Eduardo Friedman,
Colmez cones for fundamental units of totally real cubic fields,
J. Number Theory **132** (2012), 1653–1663,
(AMS MSC 11R16, 11R27, 11R80, 11H06, 11-04)
- [24] No. 2887894, **Jan 2013**, 380–381, Elisavet Konstantinou, Aristides Kontogeorgis,
Ramanujan invariants for discriminants congruent to 5 (mod 24),
Int. J. Number Theory **8** (2012), no. 1, 265–287,
(AMS MSC 11G15, 11F03, 11R37, 11R29)
- [23] No. 2770104, **2012c:11233**, Elisavet Konstantinou and Aristides Kontogeorgis,
Some remarks on the construction of class polynomials,
Adv. Math. Commun. **5** (2011), no. 1, 109–118,
(AMS MSC 11R29, 11T71, 94A60)

- [22] No. 2738150, **2011k:11155**, Stanislav Jakubec,
On the class number of some real abelian number fields of prime conductors,
 Acta Arith. **145** (2010), no. 4, 315–318,
 (AMS MSC 11R29, 11R20)
- [21] No. 2567152, **2011a:11200**, Elisavet Konstantinou and Aristides Kontogeorgis,
Computing polynomials of the Ramanujan t_n class invariants,
 Canad. Math. Bull. **52** (2009), no. 4, 583–597,
 (AMS MSC 11F03, 11G15, 11R37)
- [20] No. 2522586, **2010d:11133**, Jean-François Jaulent, Sebastian Pauli,
 Michael E. Pohst, and Florence Soriano-Gafiuk,
Computation of 2-groups of narrow logarithmic divisor classes of number fields,
 J. Symbolic Comput. **44** (2009), no. 7, 852–863,
 (AMS MSC 11Y40, 11R29, 11R70)
- [19] No. 2468469, **2009k:11178**, Veronika Trnková,
Enlargement of the group of circular units of a bicyclic field,
 J. Number Theory **129** (2009), no. 1, 28–35,
 (AMS MSC 11R27, 11R29, 11R20, 11R18)
- [18] No. 2424327, **2009e:11217**, Sharon Brueggeman and Darrin Doud,
*Local corrections of discriminant bounds and small degree extensions
 of quadratic base fields*,
 Int. J. Number Theory **4** (2008), no. 3, 349–361,
 (AMS MSC 11R11, 11R29, 11R21, 11M06)
- [17] No. 2379338, **2009b:11197**, Daisuke Shiomi,
Maillet determinants for real abelian number fields and its applications,
 Abh. Math. Sem. Univ. Hamburg **77** (2007), 191–199,
 (AMS MSC 11R29, 11R20, 11R18)
- [16] No. 2296830, **2008c:11144**, Moulay Chrif Ismaïli et Rachid El Mesaoudi,
*Sur la capitulation des 3-classes d'idéaux de la clôture normale
 de certains corps cubiques purs* (French),
 Ann. Sci. Math. Québec **29** (2005), no. 1, 49–72,
 (AMS MSC 11R16, 11R20, 11R29)
- [15] No. 2199648, **2007g:11143**, Frank Gerth, III,
On 3-class groups of certain pure cubic fields,
 Bull. Austral. Math. Soc. **72** (2005), 471–476,
 (AMS MSC 11R29, 11R16)
- [14] No. 2219042, **2007d:11121**, Lesseni Sylla,
The nonexistence of nonsolvable octic number fields ramified only at one small prime,
 Math. Comp. **75** (2006), no. 255, 1519–1526,
 (AMS MSC 11Y40, 11R21)
- [13] No. 2183095, **2006h:11126**, Moulay Chrif Ismaïli et Rachid El Mesaoudi,
Corps cubiques purs dont le nombre de classes est exactement divisible par 3 (French),
 Ann. Sci. Math. Québec **28** (2004), no. 1–2, 103–112 (2005),
 (AMS MSC 11R16, 11R29)

- [12] No. 2105876, **2005h:11248**, Ayşe Alaca and Şaban Alaca,
*An integral basis and the discriminant of a quintic field
 defined by a trinomial $x^5 + ax + b$,*
 JP Jour. Algebra, Number Theory and Appl. **4** (2004), no. 2, 261–299,
 (AMS MSC 11R21, 11R29, 11R04)
- [11] No. 2076244, **2005e:11136**, Henri Cohen,
Counting A_4 and S_4 number fields with given resolvent cubic,
 High primes and misdemeanours:
 lectures in honour of the 60th birthday of Hugh Cowie Williams,
 159–168, Fields Inst. Commun. **41**, Amer. Math. Soc., Providence, RI, 2004,
 (AMS MSC 11R16, 11R29, 11R45, 11Y40)
- [10] No. 2054079, **2005b:11171**, Şaban Alaca and Kenneth S. Williams,
 p -integral bases of a quartic field defined by a trinomial $x^4 + ax + b$,
 Far East J. Math. Sci. (FJMS) **12** (2004), no. 2, 137–168,
 (AMS MSC 11R16, 11R29, 11R04)
- [9] No. 2038542, **2004k:11175**, Blair K. Spearman and Kenneth S. Williams,
The discriminant of a cyclic field of odd prime degree,
 Rocky Mountain J. Math. **33** (2003), no. 3, 1101–1122,
 (AMS MSC 11R29, 11R20)
- [8] No. 1979698, **2004c:11198**, Blair K. Spearman and Kenneth S. Williams,
A relative integral basis over $\mathbb{Q}(\sqrt{-3})$ for the normal closure of a pure cubic field,
 Int. J. Math. Math. Sci. **2003**, no. 25, 1623–1626,
 (AMS MSC 11R16, 11R21, 11R04)
- [7] No. 1979187, **2004c:11197**, Ouafae Lahlou et Mohamed Charkani El Hassani,
Arithmétique d'une famille de corps cubiques (French),
 C. R. Math. Acad. Sci. Paris **336** (2003), no. 5, 371–376,
 (AMS MSC 11R16)
- [6] No. 1956580, **2003m:11178**, Zuzana Divišová, Juraj Kostra, and Marek Pomp,
On transformation matrices connected to normal bases in cubic fields,
 Acta Acad. Paed. Agriensis, Sectio Mathematicae **29** (2002), 61–66,
 (AMS MSC 11R16, 11C20)
- [5] No. 1914584, **2003e:11120**, Moulay Chrif Ismaïli et Rachid El Mesaoudi,
Sur la divisibilité exacte par 3 du nombre de classes de certains corps cubiques purs
 (French),
 Ann. Sci. Math. Québec **25** (2001), no. 2, 153–177,
 (AMS MSC 11R29, 11R16)
- [4] No. 1728334, **2000m:11105**, Şaban Alaca,
 p -integral bases of algebraic number fields,
 Utilitas Mathematica **56** (1999), 97–106,
 (AMS MSC 11R04, 11R16, 11R29)

[3] No. 1621956, **2000a:11154**, Blair K. Spearman and Kenneth S. Williams,
An explicit integral basis for a pure cubic field,
 Far East J. Math. Sci. (FJMS) **6** (1998), no. 1, 1–14,
 (AMS MSC 11R16, 11R04)

[2] No. 1336248, **96c:11128**, Stéphane Louboutin,
Une remarque sur l'exposant du groupe des classes d'idéaux des corps cubiques (French),
 C. R. Acad. Sci. Paris, Série I (Math.) **320** (1995), no. 10, 1161–1163,
 (AMS MSC 11R29, 11R16)

[1] No. 1252345, **94m:11149**, Carlos Alberto Trujillo S.,
Curvas elípticas y algoritmos en teoría de números: factorización (Spanish),
 Lecturas Matemáticas **12** (1991), no. 1–3, 81–95,
 (AMS MSC 11Y05, 11G05)

Languages statistics: 5 Russian, 5 French, 1 Spanish, 36 English.

III. Courses

A. Karl-Franzens-University, Graz

1. *Elliptic and Automorphic Functions*, fall term 1983/84.
2. *Functional Analysis and Spectral Theory*, spring term 1984.
3. *Linear Algebra 1*, fall term 1984/85.
4. *Linear Algebra 2*, spring term 1985.
5. *Algebraic Number Theory*, fall term 1985/86.
6. *Linear Algebra*, spring term 1986.
7. *Analysis 1 (Differential Calculus)*, fall term 1986/87, in 2 groups.
8. *Analysis 2 (Integral Calculus)*, spring term 1987.
9. *Linear Algebra*, fall term 1987/88, in 2 groups.
10. *Analytic Geometry*, spring term 1988.
11. *Higher Algebra*, fall term 1988/89.
12. *Arithmetically Equivalent Number Fields*, spring term 1989.
13. *Modular Functions and Complex Multiplication*, fall term 1989/90.
14. *Voronoi's 1- and 2-Dimensional Unit Algorithms*, spring term 1990.

B. University of Manitoba, Winnipeg

1. *Galois Cohomology and Class Field Theory*, fall term 1990/91.
2. *Selected Topics on Dihedral Field Extensions*, spring term 1991.