

M'hammed El Kahoui

List of publications, December 2008

- [1] González-Vega, Laureano; El Kahoui, M'hammed. *An improved upper complexity bound for the topology computation of a real algebraic plane curve*. J. Complexity 12 (1996), no. 4, 527–544.
- [2] El Kahoui, M'hammed; Weber, Andreas. *Deciding Hopf bifurcations by quantifier elimination in a software-component architecture*. J. Symbolic Computation (2000),30 (2), 161–179.
- [3] El Kahoui, M'hammed; Weber, Andreas; Eberhardt, Bernd. *Improved algorithms for linear complementarity problems arising from collision response*. Math. Comput. Simulation 56 (2001), no. 1, 69–93.
- [4] El Kahoui, M'hammed. *On plane polynomial vector fields and the Poincaré problem*. Elect. J. diff. Equations vol 2002(2002), no. 37, 1–23.
- [5] Bouziane, Driss; El Kahoui, M'hammed. *Computation of the dual of a projective algebraic plane curve*. J. Symbolic Computation (2002) 34, 105–117.
- [6] El Kahoui, M'hammed. *An elementary approach to subresultants theory*. J. Symbolic Computation (2003) 35 (3), 281–292.
- [7] El Kahoui, M'hammed. *Subresultants and locally nilpotent derivations*. Linear Algebra and its Applications (2004) vol 380, 253–261.
- [8] El Kahoui, M'hammed. *Rings of constants of derivations in polynomial rings over UFD's of characteristic zero*. Proc. Amer. Math. Soc. 132 (2004) 2543-2547
- [9] El Houari, Hassan; El Kahoui, M'hammed. *Algorithms for recognizing coordinates in two variables over UFD's of characteristic zero*. ISSAC 2004, 135–140, ACM, New York, 2004.
- [10] El Kahoui, M'hammed. *Birational properties of the gap subresultant varieties*. J. Symbolic Computation (2005) 39, 61-71.
- [11] El Kahoui, M'hammed. *D-resultant and subresultants*. Proc. Amer. Math. Soc. 133 (2005), 2193-2199.
- [12] El Kahoui, M'hammed. *UFD's with commuting linearly independent locally nilpotent derivations*. J. Algebra. 289 (2005) 446-452.
- [13] Brown, W. Christopher; El Kahoui, M'hammed; Novotni, Dominik and Weber, Andreas. *Algorithmic methods for investigating equilibria in epidemic modelling*. J. Symbolic Computation (2006) 41, 1157-1173.
- [14] EL Kahoui, M'hammed; Rekrak, Said. *Structure of Gröbner bases with respect to block orders*. Mathematics of Computation (2007) 76, 2181-2187.
- [15] Ben Bouziane, Toufiq; El Houari, Hassan; El Kahoui, M'hammed. *Polynomial parametrization of nonsingular complete intersection curves*. Appl. Algebra Engrg. Comm. Comput. (2007) 18, 5, 483-493.

[16] El Kahoui, M'hammed. *Topology of real algebraic space curves*. J. Symbolic computation (2008) 43, 235-258.

[17] Barkatou, Moulay A.; El Houari, Hassan; El Kahoui, M'hammed. *Triangulable locally nilpotent derivations in dimension three*. J. Pure Appl. Algebra (2008) 212, 2129-2139.

[18] El Kahoui, M'hammed; Otto, Adamou. *Stability of disease free equilibria in epidemiological models*. To appear in Mathematic of Computer Science.

PREPRINTS AND WORK IN PROGRESS

[19] Barkatou, Moulay A.; El Kahoui, M'hammed. *Locally nilpotent derivations of rank two in dimension three*. Submitted.

[20] El Kahoui, M'hammed; Moussa, Zakari Yaou. *Plane algebraic curves with Eggers singularities*. Preprint.

[21] Barkatou, Moulay A.; El Kahoui, M'hammed. *Locally nilpotent derivations of affine domains are stably triangular*. Submitted.

[22] Barkatou, Moulay A.; El Kahoui, M'hammed. *Locally nilpotent derivations with a PID ring of constants*. Preprint.