

Jiri Macas

List of Publications by Year in descending order

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124
papers

9,003
citations

28190

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docs citations

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times ranked

5773
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#	ARTICLE	IF	CITATIONS
1	RepeatExplorer: a Galaxy-based web server for genome-wide characterization of eukaryotic repetitive elements from next-generation sequence reads. <i>Bioinformatics</i> , 2013, 29, 792-793.	1.8	619
2	Graph-based clustering and characterization of repetitive sequences in next-generation sequencing data. <i>BMC Bioinformatics</i> , 2010, 11, 378.	1.2	403
3	A reference genome for pea provides insight into legume genome evolution. <i>Nature Genetics</i> , 2019, 51, 1411-1422.	9.4	363
4	Systematic survey of plant LTR-retrotransposons elucidates phylogenetic relationships of their polyprotein domains and provides a reference for element classification. <i>Mobile DNA</i> , 2019, 10, 1.	1.3	265
5	Repetitive DNA in the pea (<i>Pisum sativum</i> L.) genome: comprehensive characterization using 454 sequencing and comparison to soybean and <i>Medicago truncatula</i> . <i>BMC Genomics</i> , 2007, 8, 427.	1.2	256
6	TAREAN: a computational tool for identification and characterization of satellite DNA from unassembled short reads. <i>Nucleic Acids Research</i> , 2017, 45, e111-e111.	6.5	222
7	Repeatless and Repeat-Based Centromeres in Potato: Implications for Centromere Evolution. <i>Plant Cell</i> , 2012, 24, 3559-3574.	3.1	221
8	Plant centromeric retrotransposons: a structural and cytogenetic perspective. <i>Mobile DNA</i> , 2011, 2, 4.	1.3	186
9	Loading of Arabidopsis Centromeric Histone CENH3 Occurs Mainly during G2 and Requires the Presence of the Histone Fold Domain. <i>Plant Cell</i> , 2006, 18, 2443-2451.	3.1	181
10	Selfish supernumerary chromosome reveals its origin as a mosaic of host genome and organellar sequences. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012, 109, 13343-13346.	3.3	173
11	Pea (<i>Pisum sativum</i> L.) in the Genomic Era. <i>Agronomy</i> , 2012, 2, 74-115.	1.3	172
12	In Depth Characterization of Repetitive DNA in 23 Plant Genomes Reveals Sources of Genome Size Variation in the Legume Tribe Fabaeae. <i>PLoS ONE</i> , 2015, 10, e0143424.	1.1	172
13	Next Generation Sequencing Reveals Genome Downsizing in Allotetraploid <i>Nicotiana tabacum</i> , Predominantly through the Elimination of Paternally Derived Repetitive DNAs. <i>Molecular Biology and Evolution</i> , 2011, 28, 2843-2854.	3.5	150
14	Global analysis of repetitive DNA from unassembled sequence reads using RepeatExplorer2. <i>Nature Protocols</i> , 2020, 15, 3745-3776.	5.5	144
15	Genetics of sex determination in flowering plants. <i>Genesis</i> , 1994, 15, 214-230.	3.1	142
16	Stretching the Rules: Monocentric Chromosomes with Multiple Centromere Domains. <i>PLoS Genetics</i> , 2012, 8, e1002777.	1.5	127
17	Genomic Repeat Abundances Contain Phylogenetic Signal. <i>Systematic Biology</i> , 2015, 64, 112-126.	2.7	126
18	Nuclear Dynamics in <i>Arabidopsis thaliana</i> . <i>Molecular Biology of the Cell</i> , 2000, 11, 2733-2741.	0.9	124

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19	Analysis of the giant genomes of <i>Fritillaria</i> (<i>Liliaceae</i>) indicates that a lack of DNA removal characterizes extreme expansions in genome size. <i>New Phytologist</i> , 2015, 208, 596-607.	3.5	122
20	Significant Expansion of <i>Vicia pannonica</i> Genome Size Mediated by Amplification of a Single Type of Giant Retroelement. <i>Genetics</i> , 2006, 173, 1047-1056.	1.2	119
21	PlantSat: a specialized database for plant satellite repeats. <i>Bioinformatics</i> , 2002, 18, 28-35.	1.8	118
22	Diploidization and genome size change in allopolyploids is associated with differential dynamics of low- and high-copy sequences. <i>Plant Journal</i> , 2013, 74, 829-839.	2.8	112
23	Survey of repetitive sequences in <i>Silene latifolia</i> with respect to their distribution on sex chromosomes. <i>Chromosome Research</i> , 2008, 16, 961-976.	1.0	99
24	Next Generation Sequencing-Based Analysis of Repetitive DNA in the Model Dioecious Plant <i>Silene latifolia</i> . <i>PLoS ONE</i> , 2011, 6, e27335.	1.1	97
25	Holocentromeres in <i>Rhynchospora</i> are associated with genome-wide centromere-specific repeat arrays interspersed among euchromatin. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 13633-13638.	3.3	96
26	Highly abundant pea LTR retrotransposon Ogre is constitutively transcribed and partially spliced. <i>Plant Molecular Biology</i> , 2003, 53, 399-410.	2.0	92
27	Repetitive part of the banana (<i>Musa acuminata</i>) genome investigated by low-depth 454 sequencing. <i>BMC Plant Biology</i> , 2010, 10, 204.	1.6	90
28	Development and Characterization of Microsatellite Markers from Chromosome 1-Specific DNA Libraries of <i>Vicia Faba</i> . <i>Biologia Plantarum</i> , 2002, 45, 337-345.	1.9	87
29	Repeat-sequence turnover shifts fundamentally in species with large genomes. <i>Nature Plants</i> , 2020, 6, 1325-1329.	4.7	87
30	Survey of extrachromosomal circular DNA derived from plant satellite repeats. <i>BMC Plant Biology</i> , 2008, 8, 90.	1.6	86
31	The holocentric species <i>Luzula elegans</i> shows interplay between centromere and large-scale genome organization. <i>Plant Journal</i> , 2013, 73, 555-565.	2.8	86
32	Next-Generation Sequencing Reveals the Impact of Repetitive DNA Across Phylogenetically Closely Related Genomes of <i>Orobanchaceae</i> . <i>Molecular Biology and Evolution</i> , 2012, 29, 3601-3611.	3.5	82
33	Green Fluorescent Protein Targeted to the Nucleus, a Transgenic Phenotype Useful for Studies in Plant Biology. <i>Annals of Botany</i> , 1999, 83, 645-654.	1.4	79
34	Diverse retrotransposon families and an AT-rich satellite DNA revealed in giant genomes of <i>Fritillaria lilies</i> . <i>Annals of Botany</i> , 2011, 107, 255-268.	1.4	78
35	Nondisjunction in Favor of a Chromosome: The Mechanism of Rye B Chromosome Drive during Pollen Mitosis. <i>Plant Cell</i> , 2012, 24, 4124-4134.	3.1	77
36	Independent, Rapid and Targeted Loss of Highly Repetitive DNA in Natural and Synthetic Allopolyploids of <i>Nicotiana tabacum</i> . <i>PLoS ONE</i> , 2012, 7, e36963.	1.1	77

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37	Localization of seed protein genes on flow-sorted field bean chromosomes. <i>Chromosome Research</i> , 1993, 1, 107-115.	1.0	76
38	Characterization of repeat arrays in ultra-long nanopore reads reveals frequent origin of satellite DNA from retrotransposon-derived tandem repeats. <i>Plant Journal</i> , 2020, 101, 484-500.	2.8	76
39	Organization and Evolution of Subtelomeric Satellite Repeats in the Potato Genome. <i>G3: Genes, Genomes, Genetics</i> , 2011, 1, 85-92.	0.8	75
40	High-copy sequences reveal distinct evolution of the rye B chromosome. <i>New Phytologist</i> , 2013, 199, 550-558.	3.5	75
41	Boom-Bust Turnovers of Megabase-Sized Centromeric DNA in <i>Solanum</i> Species: Rapid Evolution of DNA Sequences Associated with Centromeres. <i>Plant Cell</i> , 2014, 26, 1436-1447.	3.1	73
42	Sobo, a Recently Amplified Satellite Repeat of Potato, and Its Implications for the Origin of Tandemly Repeated Sequences. <i>Genetics</i> , 2005, 170, 1231-1238.	1.2	71
43	Hypervariable 5' UTR region of plant LTR-retrotransposons as a source of novel satellite repeats. <i>Gene</i> , 2009, 448, 198-206.	1.0	70
44	Chromosome sorting and PCR-based physical mapping in pea (<i>Pisum sativum</i> L.). <i>Chromosome Research</i> , 2002, 10, 63-71.	1.0	69
45	Centromeres Off the Hook: Massive Changes in Centromere Size and Structure Following Duplication of <i>CenH3</i> Gene in <i>Fabaceae</i> Species. <i>Molecular Biology and Evolution</i> , 2015, 32, 1862-1879.	3.5	69
46	A Set of Cytogenetic Markers Allows the Precise Identification of All A-Genome Chromosomes in Diploid and Polyploid Wheat. <i>Cytogenetic and Genome Research</i> , 2015, 146, 71-79.	0.6	69
47	Genes on B chromosomes: Old questions revisited with new tools. <i>Biochimica Et Biophysica Acta - Gene Regulatory Mechanisms</i> , 2015, 1849, 64-70.	0.9	68
48	Multicolor FISH mapping of the dioecious model plant, <i>Silene latifolia</i> . <i>Theoretical and Applied Genetics</i> , 2004, 108, 1193-1199.	1.8	66
49	Satellite DNA in <i>Vicia faba</i> is characterized by remarkable diversity in its sequence composition, association with centromeres, and replication timing. <i>Scientific Reports</i> , 2018, 8, 5838.	1.6	66
50	Flow cytogenetics and plant genome mapping. <i>Chromosome Research</i> , 2004, 12, 77-91.	1.0	65
51	Retand: a novel family of gypsy-like retrotransposons harboring an amplified tandem repeat. <i>Molecular Genetics and Genomics</i> , 2006, 276, 254-263.	1.0	63
52	Mapping of repeated DNA sequences in plant chromosomes by PRINS and C-PRINS. <i>Theoretical and Applied Genetics</i> , 1997, 94, 758-763.	1.8	62
53	Transcription and Evolutionary Dynamics of the Centromeric Satellite Repeat CentO in Rice. <i>Molecular Biology and Evolution</i> , 2006, 23, 2505-2520.	3.5	62
54	Karyotype Analysis of Four <i>Vicia</i> Species using In Situ Hybridization with Repetitive Sequences. <i>Annals of Botany</i> , 2003, 91, 921-926.	1.4	61

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55	Next generation sequencing analysis reveals a relationship between rDNA unit diversity and locus number in <i>Nicotiana</i> diploids. <i>BMC Genomics</i> , 2012, 13, 722.	1.2	60
56	Centromeric and non-centromeric satellite DNA organisation differs in holocentric <i>Rhynchospora</i> species. <i>Chromosoma</i> , 2017, 126, 325-335.	1.0	59
57	Development of a composite map in <i>Vicia faba</i> , breeding applications and future prospects. <i>Theoretical and Applied Genetics</i> , 2004, 108, 1079-1088.	1.8	58
58	Differential amplification of satellite PaB6 in chromosomally hypervariable <i>Prospero autumnale</i> complex (Hyacinthaceae). <i>Annals of Botany</i> , 2014, 114, 1597-1608.	1.4	58
59	Ogre elements – A distinct group of plant Ty3/gypsy-like retrotransposons. <i>Gene</i> , 2007, 390, 108-116.	1.0	55
60	Contrasting Patterns of Transposable Element and Satellite Distribution on Sex Chromosomes (XY1Y2) in the Dioecious Plant <i>Rumex acetosa</i> . <i>Genome Biology and Evolution</i> , 2013, 5, 769-782.	1.1	55
61	Development of a genetic composite map of <i>Vicia faba</i> using F2 populations derived from trisomic plants. <i>Theoretical and Applied Genetics</i> , 1999, 98, 736-743.	1.8	54
62	Dating the Species Network: Allopolyploidy and Repetitive DNA Evolution in American Daisies (<i>Melampodium</i> sect. <i>Melampodium</i> , Asteraceae). <i>Systematic Biology</i> , 2018, 67, 1010-1024.	2.7	54
63	Genome-Wide Analysis of Repeat Diversity across the Family Musaceae. <i>PLoS ONE</i> , 2014, 9, e98918.	1.1	54
64	Construction of chromosome-specific DNA libraries covering the whole genome of field bean (<i>Vicia</i>) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	1.0	52
65	Evolutionary conserved lineage of Angela-family retrotransposons as a genome-wide microsatellite repeat dispersal agent. <i>Heredity</i> , 2009, 103, 157-167.	1.2	52
66	Sequence subfamilies of satellite repeats related to rDNA intergenic spacer are differentially amplified on <i>Vicia sativa</i> chromosomes. <i>Chromosoma</i> , 2003, 112, 152-158.	1.0	51
67	Subtraction with 3' Modified Oligonucleotides Eliminates Amplification Artifacts in DNA Libraries Enriched for Microsatellites. <i>BioTechniques</i> , 1998, 25, 32-38.	0.8	50
68	Two new families of tandem repeats isolated from genus <i>Vicia</i> using genomic self-priming PCR. <i>Molecular Genetics and Genomics</i> , 2000, 263, 741-751.	2.4	49
69	Analysis of Nuclear DNA Content and Ploidy in Higher Plants. <i>Current Protocols in Cytometry</i> , 1997, 2, Unit 7.6.	3.7	46
70	Molecular and cytogenetic analysis of repetitive DNA in pea (<i>Pisum sativum</i> L.). <i>Genome</i> , 2001, 44, 716-728.	0.9	46
71	Comparative Genome Analysis Reveals Divergent Genome Size Evolution in a Carnivorous Plant Genus. <i>Plant Genome</i> , 2015, 8, eplantgenome2015.04.0021.	1.6	45
72	Primed in situ labelling facilitates flow sorting of similar sized chromosomes. <i>Plant Journal</i> , 1995, 7, 1039-1044.	2.8	44

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73	Global sequence characterization of rice centromeric satellite based on oligomer frequency analysis in large-scale sequencing data. <i>Bioinformatics</i> , 2010, 26, 2101-2108.	1.8	43
74	Super-Resolution Microscopy Reveals Diversity of Plant Centromere Architecture. <i>International Journal of Molecular Sciences</i> , 2020, 21, 3488.	1.8	42
75	Extraordinary Sequence Diversity and Promiscuity of Centromeric Satellites in the Legume Tribe Fabaeae. <i>Molecular Biology and Evolution</i> , 2020, 37, 2341-2356.	3.5	42
76	Centromere and telomere sequence alterations reflect the rapid genome evolution within the carnivorous plant genus <i>Genlisea</i> . <i>Plant Journal</i> , 2015, 84, 1087-1099.	2.8	41
77	Isolation of chromosomes from <i>Pisum sativum</i> L. hairy root cultures and their analysis by flow cytometry. <i>Plant Science</i> , 1998, 137, 205-215.	1.7	40
78	Survey Sequencing Reveals Elevated DNA Transposon Activity, Novel Elements, and Variation in Repetitive Landscapes among Vesper Bats. <i>Genome Biology and Evolution</i> , 2012, 4, 575-585.	1.1	38
79	Microarray-based survey of repetitive genomic sequences in <i>Vicia</i> spp. <i>Plant Molecular Biology</i> , 2001, 45, 229-244.	2.0	37
80	Mitotic Spindle Attachment to the Holocentric Chromosomes of <i>Cuscuta europaea</i> Does Not Correlate With the Distribution of CENH3 Chromatin. <i>Frontiers in Plant Science</i> , 2020, 10, 1799.	1.7	37
81	Differential Genome Size and Repetitive DNA Evolution in Diploid Species of <i>Melampodium</i> sect. <i>Melampodium</i> (Asteraceae). <i>Frontiers in Plant Science</i> , 2020, 11, 362.	1.7	37
82	Sequence homogenization and chromosomal localization of VicTR-B satellites differ between closely related <i>Vicia</i> species. <i>Chromosoma</i> , 2006, 115, 437-447.	1.0	35
83	<i>Arabidopsis</i> CBF5 interacts with the H/ACA snoRNP assembly factor NAF1. <i>Plant Molecular Biology</i> , 2007, 65, 615-626.	2.0	33
84	The effect of an elevated cytokinin level using the <i>ipt</i> gene and N 6-benzyladenine on single node and intact potato plant tuberization in vitro. <i>Journal of Plant Growth Regulation</i> , 1995, 14, 143-150.	2.8	32
85	Repeat Composition of CenH3-chromatin and H3K9me2-marked heterochromatin in Sugar Beet (<i>Beta</i>) Tj ETQq1 1 0.784314 rrgBT /Ov 1.6 32	1.6	32
86	Epigenetic Histone Marks of Extended Meta-Polycentric Centromeres of <i>Lathyrus</i> and <i>Pisum</i> Chromosomes. <i>Frontiers in Plant Science</i> , 2016, 7, 234.	1.7	31
87	Haplotype Detection from Next-Generation Sequencing in High-Ploidy-Level Species: 45S rDNA Gene Copies in the Hexaploid <i>Spartina maritima</i> . <i>G3: Genes, Genomes, Genetics</i> , 2016, 6, 29-40.	0.8	29
88	Localization of vicilin genes via polymerase chain reaction on microisolated field bean chromosomes. <i>Plant Journal</i> , 1993, 3, 883-886.	2.8	28
89	Molecular and cytogenetic analysis of repetitive DNA in pea (<i>Pisum sativum</i> L.). <i>Genome</i> , 2001, 44, 716-728.	0.9	28
90	Why size really matters when sequencing plant genomes. <i>Plant Ecology and Diversity</i> , 2012, 5, 415-425.	1.0	27

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91	Flow Sorting and Sequencing Meadow Fescue Chromosome 4F. <i>Plant Physiology</i> , 2013, 163, 1323-1337.	2.3	27
92	Chromosome analysis and sorting in <i>Vicia sativa</i> using flow cytometry. <i>Biologia Plantarum</i> , 2007, 51, 43-48.	1.9	26
93	Nondisjunction and unequal spindle organization accompany the drive of <i>Aegilops speltoides</i> B chromosomes. <i>New Phytologist</i> , 2019, 223, 1340-1352.	3.5	26
94	Characterization of Stowaway MITEs in pea (<i>Pisum sativum</i> L.) and identification of their potential master elements. <i>Genome</i> , 2005, 48, 831-839.	0.9	24
95	A widespread occurrence of extra open reading frames in plant Ty3/gypsy retrotransposons. <i>Genetica</i> , 2011, 139, 1543-1555.	0.5	23
96	Chromosome-scale genome assembly for the duckweed <i>Spirodela intermedia</i> , integrating cytogenetic maps, PacBio and Oxford Nanopore libraries. <i>Scientific Reports</i> , 2020, 10, 19230.	1.6	23
97	Isolation and characterization of the highly repeated fraction of the banana genome. <i>Cytogenetic and Genome Research</i> , 2007, 119, 268-274.	0.6	22
98	Impact of parasitic lifestyle and different types of centromere organization on chromosome and genome evolution in the plant genus <i>Cuscuta</i> . <i>New Phytologist</i> , 2021, 229, 2365-2377.	3.5	22
99	Cloning and Characterization of New Repetitive Sequences in Field Bean (<i>Vicia faba</i> L.). <i>Annals of Botany</i> , 1999, 83, 535-541.	1.4	21
100	Nuclear expressed sequence tag (NEST) analysis: A novel means to study transcription through amplification of nuclear RNA. <i>Cytometry</i> , 1998, 33, 460-468.	1.8	20
101	<i>Plantago lagopus</i> B Chromosome Is Enriched in 5S rDNA-Derived Satellite DNA. <i>Cytogenetic and Genome Research</i> , 2016, 148, 68-73.	0.6	20
102	PIGY, a new plant envelope-class LTR retrotransposon. <i>Molecular Genetics and Genomics</i> , 2005, 273, 43-53.	1.0	19
103	The Dark Matter of Large Cereal Genomes: Long Tandem Repeats. <i>International Journal of Molecular Sciences</i> , 2019, 20, 2483.	1.8	19
104	Sorting of plant chromosomes. <i>Methods in Cell Biology</i> , 2001, 64, 3-31.	0.5	18
105	Accessing a Russian Wheat Aphid Resistance Gene in Bread Wheat by Long-Read Technologies. <i>Plant Genome</i> , 2019, 12, 180065.	1.6	15
106	The <i>Agrobacterium tumefaciens</i> C58-6b gene confers resistance to N ⁶ -benzyladenine without modifying cytokinin metabolism in tobacco seedlings. <i>Planta</i> , 1999, 209, 453-461.	1.6	14
107	Zaba: a novel miniature transposable element present in genomes of legume plants. <i>Molecular Genetics and Genomics</i> , 2003, 269, 624-631.	1.0	14
108	Karyotypes and Distribution of Tandem Repeat Sequences in <i>Brassica nigra</i> ; Determined by Fluorescence in situ Hybridization. <i>Cytogenetic and Genome Research</i> , 2017, 152, 158-165.	0.6	10

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109	Fine structure and transcription dynamics of bread wheat ribosomal DNA loci deciphered by a multi-omics approach. <i>Plant Genome</i> , 2022, , e20191.	1.6	10
110	The ecology of palm genomes: repeat-associated genome size expansion is constrained by aridity. <i>New Phytologist</i> , 2022, 236, 433-446.	3.5	10
111	Experimental evidence for splicing of intron-containing transcripts of plant LTR retrotransposon Ogr1. <i>Molecular Genetics and Genomics</i> , 2008, 280, 427-36.	1.0	9
112	Complex sequence organization of heterochromatin in the holocentric plant <i>Cuscuta europaea</i> elucidated by the computational analysis of nanopore reads. <i>Computational and Structural Biotechnology Journal</i> , 2021, 19, 2179-2189.	1.9	9
113	Limitation of current probe design for oligo-cross-FISH, exemplified by chromosome evolution studies in duckweeds. <i>Chromosoma</i> , 2021, 130, 15-25.	1.0	9
114	Analysis of T-DNA-mediated translational beta-glucuronidase gene fusions. <i>Plant Molecular Biology</i> , 1998, 36, 205-217.	2.0	8
115	Chromosome Flow Sorting and Physical Mapping. , 2005, , 151-171.		6
116	Long-range organization of plant satellite repeats investigated using strand-specific FISH. <i>Cytogenetic and Genome Research</i> , 2005, 109, 58-62.	0.6	6
117	A combined PRINS-FISH technique for simultaneous localisation of DNA sequences on plant chromosomes. <i>Biologia Plantarum</i> , 1998, 41, 293-296.	1.9	5
118	Chromatin organization and cytological features of carnivorous <i>Genlisea</i> species with large genome size differences. <i>Frontiers in Plant Science</i> , 2015, 6, 613.	1.7	5
119	<i>Pisum sativum</i> (Pea). <i>Trends in Genetics</i> , 2020, 36, 312-313.	2.9	5
120	Flow Analysis and Sorting of Plant Chromosomes. <i>Current Protocols in Cytometry</i> , 1999, 9, Unit 5.3.	3.7	3
121	PRINS on Plant Chromosomes. , 2006, 334, 133-140.		3
122	Genome invasion by a hypomethylated satellite repeat in Australian crucifer <i>Ballantinia antipoda</i> . <i>Plant Journal</i> , 2019, 99, 1066-1079.	2.8	3
123	The Repetitive Content in Lupin Genomes. <i>Compendium of Plant Genomes</i> , 2020, , 161-186.	0.3	2
124	Cloning and Characterization of New Repetitive Sequences in Field Bean (<i>Vicia faba</i> L.). <i>Annals of Botany</i> , 2000, 85, 157.	1.4	0