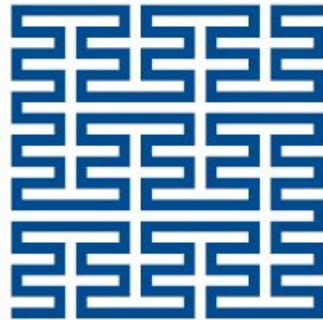


Minimal and Canonical Images

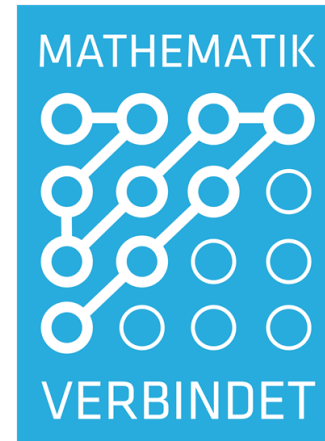
Chris Jefferson, Markus Pfeiffer, Rebecca Waldecker



University of
St Andrews



School of Computer Science
University of St Andrews



caj21@st-andrews.ac.uk

markus.pfeiffer@st-andrews.ac.uk

rebecca.waldecker@mathematik.uni-halle.de

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Benchmarking: Grid Groups

	Stab Search	$\lfloor \frac{n}{2} \rfloor$			$\lfloor \frac{n}{4} \rfloor$			$\lfloor \frac{n}{8} \rfloor$		
		# solved	largest	time (s)	# solved	largest	time (s)	# solved	largest	time (s)
RareOrbitPlusRare	F	56	4,225	12,549	88	8,464	10,474	91	9,216	13,663
RareOrbitPlusMin	F	54	4,225	13,207	89	9,604	10,546	90	9,025	13,484
RareOrbitPlusCommon	F	30	2,209	19,306	65	5,476	15,408	90	9,216	14,009
SingleMaxOrbit	F	11	225	24,671	27	961	25,795	52	3,136	23,532
RareOrbit	F	8	144	24,763	17	625	27,213	34	4,096	25,979
MinOrbit	F	8	144	24,739	16	400	27,735	31	1,521	26,706
CommonRatioOrbit	F	7	121	24,990	15	400	28,255	29	1,296	27,322
FixedMinOrbit	T	8	144	24,796	13	361	28,619	22	841	28,841
FixedMinOrbit	F	8	144	24,786	13	361	28,573	21	841	28,859
Minimum	F	4	64	25,819	8	144	30,039	10	196	31,851
Minimum	T	4	64	25,822	7	144	29,962	10	196	31,829
RareRatioOrbit	F	3	49	26,126	5	81	30,379	8	144	32,804
MaxOrbit	F	3	49	26,123	5	81	30,373	8	144	32,771
FixedMaxOrbit	F	3	49	26,120	5	81	30,374	8	144	32,725
FixedMaxOrbit	T	3	49	26,113	5	81	30,381	8	144	32,450
CommonOrbit	F	3	49	26,131	5	81	30,396	8	144	32,826

Benchmarking: M-sets

	Stab Search	$\lfloor \frac{n}{2} \rfloor$			$\lfloor \frac{n}{4} \rfloor$			$\lfloor \frac{n}{8} \rfloor$		
		# solved	largest	time (s)	# solved	largest	time (s)	# solved	largest	time (s)
RareOrbitPlusMin	F	28	27,405	1,290	30	52,360	835	30	52,360	251
RareOrbitPlusRare	F	27	12,650	1,235	30	52,360	1,107	30	52,360	322
RareOrbitPlusCommon	F	27	12,650	1,819	30	52,360	1,189	30	52,360	335
MinOrbit	F	9	1,365	6,701	22	6,435	4,143	28	27,405	1,203
RareOrbit	F	9	1,365	6,769	21	6,435	4,190	28	27,405	1,276
FixedMinOrbit	F	9	1,365	6,671	22	6,435	4,292	27	12,650	1,765
FixedMinOrbit	T	9	1,365	6,678	22	6,435	4,291	27	12,650	1,766
CommonRatioOrbit	F	9	1,365	6,782	21	6,435	4,215	28	27,405	1,348
Minimum	F	4	210	7,866	5	210	7,562	7	1,365	7,033
Minimum	T	4	210	7,843	5	210	7,573	7	1,365	7,037
SingleMaxOrbit	F	4	210	7,813	5	210	7,554	6	1,365	7,325
FixedMaxOrbit	T	4	210	7,853	5	210	7,691	6	210	7,569
RareRatioOrbit	F	4	210	7,923	5	210	7,642	5	210	7,500
MaxOrbit	F	4	210	7,915	5	210	7,695	5	210	7,500
FixedMaxOrbit	F	4	210	7,890	5	210	7,666	5	210	7,500
CommonOrbit	F	4	210	7,947	5	210	7,724	5	210	7,500

Benchmarking: Primitive Groups

	Stab Search	$\lfloor \frac{n}{2} \rfloor$ # solved	time (s)	$\lfloor \frac{n}{4} \rfloor$ # solved	time (s)	$\lfloor \frac{n}{8} \rfloor$ # solved	time (s)
RareOrbitPlusMin	F	5,689	64,983	5,749	39,564	5,840	10,287
RareOrbitPlusRare	F	5,656	81,814	5,738	43,202	5,825	19,025
RareOrbitPlusCommon	F	5,561	113,011	5,721	59,740	5,816	25,392
FixedMinOrbit	T	5,360	220,076	5,623	82,684	5,817	18,295
FixedMinOrbit	F	5,354	251,786	5,628	99,253	5,816	30,193
MinOrbit	F	5,348	263,053	5,641	104,241	5,844	27,720
RareOrbit	F	5,324	272,631	5,632	105,537	5,844	29,365
CommonRatioOrbit	F	5,323	277,050	5,629	107,561	5,844	32,123
SingleMaxOrbit	F	4,811	465,908	5,250	253,467	5,648	112,147
Minimum	T	4,723	390,334	5,163	242,477	5,631	88,048
Minimum	F	4,710	501,952	5,180	280,686	5,633	106,983
FixedMaxOrbit	F	4,659	514,618	5,119	298,321	5,587	132,508
FixedMaxOrbit	T	4,674	392,753	5,095	251,001	5,583	107,433
MaxOrbit	F	4,641	544,222	5,104	310,402	5,587	144,182
RareRatioOrbit	F	4,614	559,690	5,090	316,609	5,586	152,201
CommonOrbit	F	4,604	569,047	5,086	319,288	5,586	154,142

Give us your problems!

- Paper:

<https://arxiv.org/pdf/1703.00197.pdf>

- Software:

<https://github.com/gap-packages/images>

<https://github.com/gap-packages/ferret>

