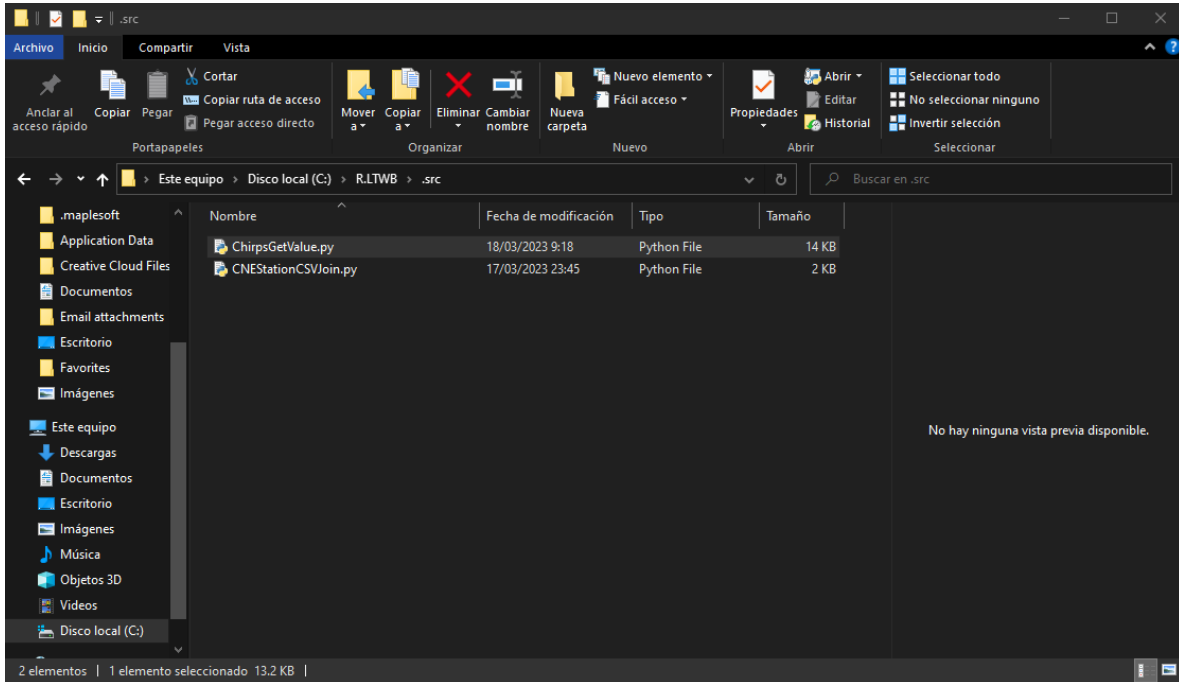
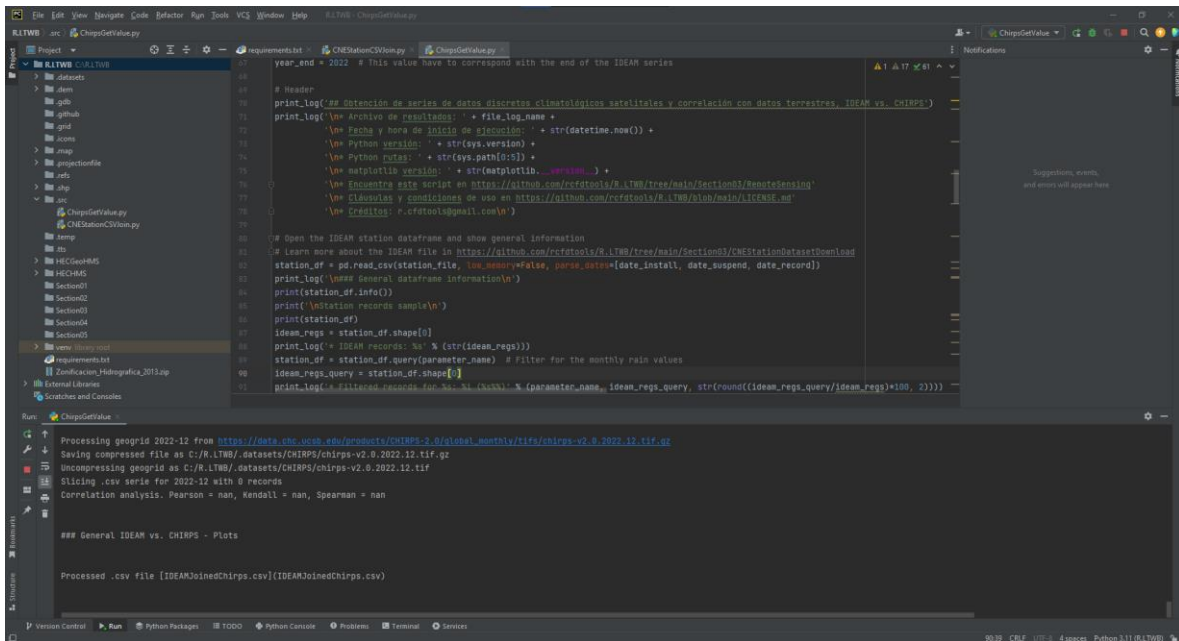


SECTION 03-REMOTESENSING, CURSO LTWB

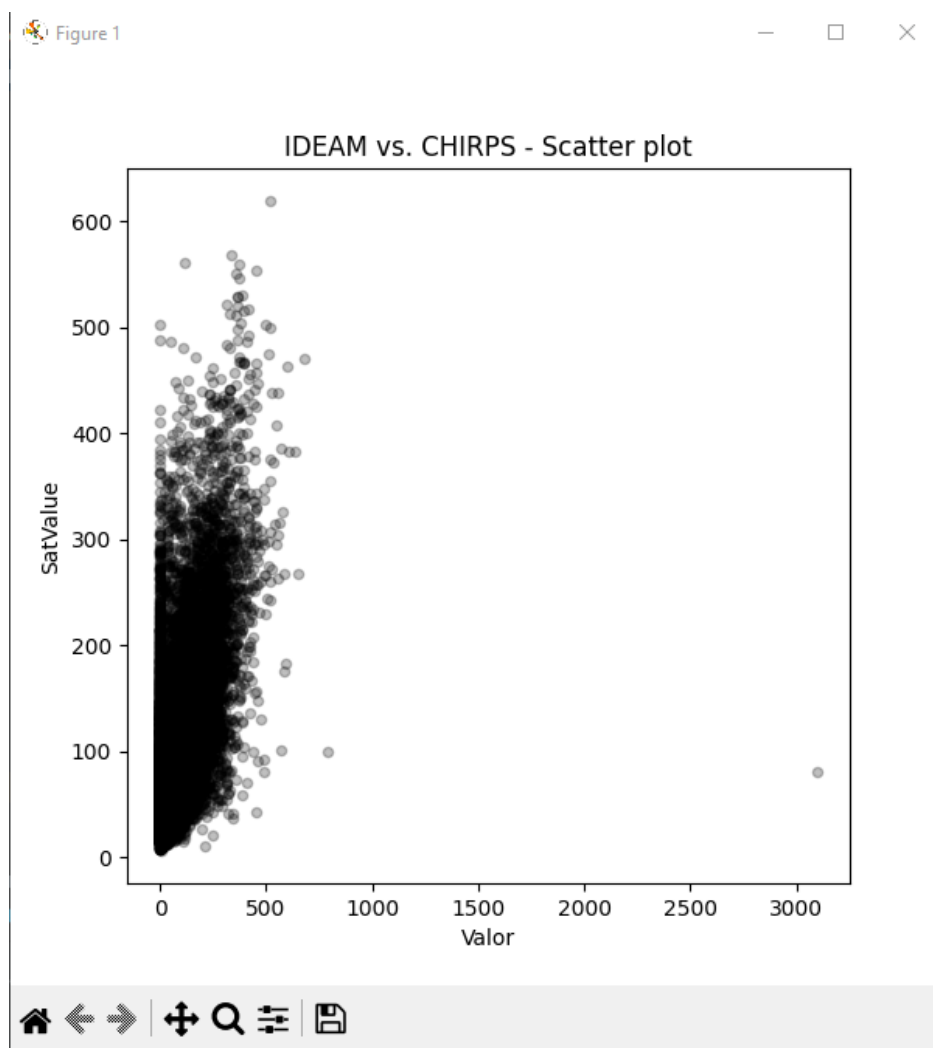
Archivo ChirpsGetValue.py



Se ejecuta el código usando Pycharm

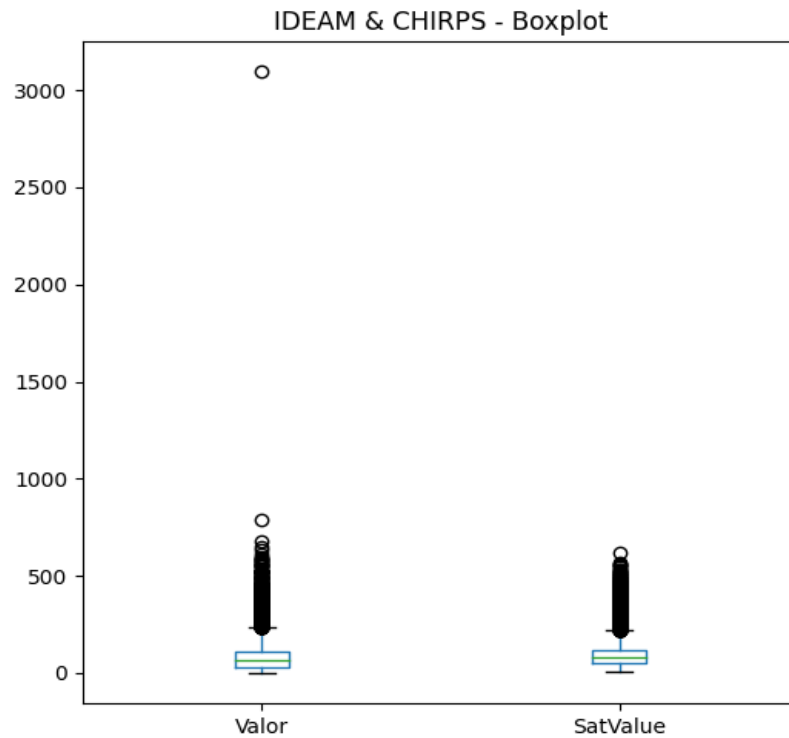


General IDEAM vs. CHIRPS - Plots



Se observa que la dispersión de los puntos es mínima, manteniendo un valor de 0 a 500 casi en la totalidad de los datos.

Figure 1



La forma de las cajas es bastante similar, sin embargo, la variable Valor cuenta con un dato por encima de 3000, cosa que no ocurre con SatValue

Tabla IDEAMJoinedChirpsCorrelationDate.csv

Date	Year	Month	Pearson	Kendall	Spearman
1/01/1981	1981	1	0.41961053	0.1503353	0.2010737
1/02/1981	1981	2	0.38536143	0.05797355	0.08107863
1/03/1981	1981	3	0.38436553	0.13721057	0.19815169
1/04/1981	1981	4	0.14529887	0.20865204	0.26553966
1/05/1981	1981	5	0.16348486	0.1106489	0.15423148
1/06/1981	1981	6	0.50146229	0.29674233	0.42451788
1/07/1981	1981	7	0.50501596	0.40552516	0.58534966
1/08/1981	1981	8	0.31516463	0.25060905	0.34959462
1/09/1981	1981	9	0.39972174	0.31293728	0.42648795
1/10/1981	1981	10	0.13017457	0.11992702	0.17596433
1/11/1981	1981	11	0.24641785	0.05845214	0.08873044

1/12/1981	1981	12	0.18111481	0.025666	0.04014177
1/01/1982	1982	1	0.54531313	0.22610032	0.32876462
1/02/1982	1982	2	0.69445128	0.43732934	0.60500102
1/03/1982	1982	3	0.57019498	0.19431525	0.29605409
1/04/1982	1982	4	0.35303437	0.19666388	0.29407401
1/05/1982	1982	5	0.52964086	0.40054207	0.54690537
1/06/1982	1982	6	0.55812215	0.36408035	0.50932148
1/07/1982	1982	7	0.70999511	0.57801715	0.77842936
1/08/1982	1982	8	0.67438268	0.64068216	0.82827548
1/09/1982	1982	9	0.67297332	0.42835365	0.60054239
1/10/1982	1982	10	0.61692666	0.42602722	0.60353559
1/11/1982	1982	11	0.67941892	0.3307184	0.46795207
1/12/1982	1982	12	0.60245697	0.27744448	0.40794171
1/01/1983	1983	1	0.62620757	0.27837048	0.4013318
1/02/1983	1983	2	0.40016271	0.26922522	0.39854486
1/03/1983	1983	3	0.57214111	0.25314173	0.35449708
1/04/1983	1983	4	0.54253339	0.38220685	0.52865725
1/05/1983	1983	5	0.50606745	0.41884693	0.59639682
1/06/1983	1983	6	0.60216004	0.46698621	0.64212196
1/07/1983	1983	7	0.68614364	0.49469008	0.67683287
1/08/1983	1983	8	0.71074126	0.39901527	0.56594725
1/09/1983	1983	9	0.56446702	0.21475836	0.32478689
1/10/1983	1983	10	0.63119784	0.3090968	0.45526505
1/11/1983	1983	11	0.71274566	0.313377	0.44240464
1/12/1983	1983	12	0.75669284	0.3212964	0.45324852
1/01/1984	1984	1	0.52741029	0.23705372	0.33359909
1/02/1984	1984	2	0.46350992	0.2294093	0.33493036
1/03/1984	1984	3	0.58431626	0.30046971	0.43823896
1/04/1984	1984	4	0.61459393	0.27882481	0.40976786
1/05/1984	1984	5	0.74367307	0.41418464	0.58322564
1/06/1984	1984	6	0.68035802	0.35784798	0.49795829
1/07/1984	1984	7	0.62401855	0.41098991	0.57550184
1/08/1984	1984	8	0.47515647	0.29547905	0.41843748
1/09/1984	1984	9	0.50822847	0.33963484	0.48239448
1/10/1984	1984	10	0.66322968	0.33865737	0.47965439
1/11/1984	1984	11	0.66440982	0.34087872	0.48557855
1/12/1984	1984	12	0.69183779	0.27346018	0.38125019
1/01/1985	1985	1	0.38996078	0.11841239	0.17985689
1/02/1985	1985	2	0.34202444	0.12418347	0.20220227
1/03/1985	1985	3	0.45649165	0.29759551	0.45683738
1/04/1985	1985	4	0.57945616	0.27918058	0.42056936

1/05/1985	1985	5	0.30625777	0.17140144	0.25714993
1/06/1985	1985	6	0.58262887	0.48555102	0.66350195
1/07/1985	1985	7	0.39265568	0.3352932	0.46496968
1/08/1985	1985	8	0.56750006	0.34715823	0.48842609
1/09/1985	1985	9	0.33546832	0.24872857	0.36487032
1/10/1985	1985	10	0.35065639	0.26509153	0.37961864
1/11/1985	1985	11	0.24922378	0.15668867	0.21888539
1/12/1985	1985	12	0.42896411	0.11817023	0.17408293
1/01/1986	1986	1	0.60864937	0.22326776	0.31317527
1/02/1986	1986	2	0.40735598	0.22418773	0.31850937
1/03/1986	1986	3	0.5116933	0.20400104	0.30199108
1/04/1986	1986	4	0.64453398	0.33292192	0.47461941
1/05/1986	1986	5	0.55882914	0.32827569	0.46322079
1/06/1986	1986	6	0.62338405	0.32400615	0.45076976
1/07/1986	1986	7	0.75949022	0.56751288	0.75007258
1/08/1986	1986	8	0.54913713	0.30894766	0.44520119
1/09/1986	1986	9	0.41164896	0.30079717	0.40616656
1/10/1986	1986	10	0.35256988	0.19009195	0.28635418
1/11/1986	1986	11	0.42872086	0.27649219	0.38193904
1/12/1986	1986	12	0.43180536	0.23885729	0.33887112
1/01/1987	1987	1	0.60283296	0.25226481	0.37919344
1/02/1987	1987	2	0.45342833	0.17023195	0.23740645
1/03/1987	1987	3	0.59266788	0.34434495	0.49721482
1/04/1987	1987	4	0.63936589	0.34044448	0.49594857
1/05/1987	1987	5	0.36313252	0.18338638	0.28568036
1/06/1987	1987	6	0.59513263	0.36318821	0.50880134
1/07/1987	1987	7	0.7362696	0.32280475	0.47241321
1/08/1987	1987	8	0.75657023	0.36630681	0.5196724
1/09/1987	1987	9	0.75874523	0.48579089	0.66255872
1/10/1987	1987	10	0.70562785	0.34590239	0.49179943
1/11/1987	1987	11	0.73550239	0.30654933	0.45344374
1/12/1987	1987	12	0.57218584	0.21637282	0.33177146
1/01/1988	1988	1	0.5868268	0.31379943	0.44424907
1/02/1988	1988	2	0.72187415	0.38101167	0.53264139
1/03/1988	1988	3	0.2165955	0.12552708	0.17927881
1/04/1988	1988	4	0.44777875	0.30131409	0.41460882
1/05/1988	1988	5	0.41437959	0.26877852	0.38738361
1/06/1988	1988	6	0.37403569	0.36415921	0.51193461
1/07/1988	1988	7	0.55438692	0.38553071	0.52995571
1/08/1988	1988	8	0.3844843	0.34967434	0.4804428
1/09/1988	1988	9	0.28907206	0.23297076	0.33089523

1/10/1988	1988	10	0.24348457	0.09322201	0.13247557
1/11/1988	1988	11	0.56478586	0.3153603	0.44846233
1/12/1988	1988	12	0.53057107	0.28023083	0.40833938
1/01/1989	1989	1	0.74664912	0.37722492	0.51028295
1/02/1989	1989	2	0.56738223	0.25201007	0.36276014
1/03/1989	1989	3	0.47295914	0.18838546	0.27376514
1/04/1989	1989	4	0.50930569	0.23656677	0.34334747
1/05/1989	1989	5	0.3672563	0.29972974	0.4246868
1/06/1989	1989	6	0.49556614	0.3690742	0.4925037
1/07/1989	1989	7	0.67448541	0.45215441	0.62049456
1/08/1989	1989	8	0.68637031	0.39007094	0.53317722
1/09/1989	1989	9	0.44822804	0.37054836	0.51193637
1/10/1989	1989	10	0.53048424	0.41648775	0.56362631
1/11/1989	1989	11	0.52482656	0.27801652	0.39994051
1/12/1989	1989	12	0.62838092	0.22931667	0.343133
1/01/1990	1990	1	0.50503801	0.29724807	0.42430803
1/02/1990	1990	2	0.64818386	0.27914543	0.40213459
1/03/1990	1990	3	0.52478612	0.24868519	0.35602526
1/04/1990	1990	4	0.29413285	0.16142684	0.21989761
1/05/1990	1990	5	0.41276434	0.14943701	0.21799535
1/06/1990	1990	6	0.7098493	0.40664039	0.5520017
1/07/1990	1990	7	0.67330193	0.27447287	0.39083244
1/08/1990	1990	8	0.68913282	0.40789253	0.55372872
1/09/1990	1990	9	0.52300463	0.33605867	0.47566496
1/10/1990	1990	10	0.41072925	0.30222346	0.40689447
1/11/1990	1990	11	0.52006684	0.311782	0.43371186
1/12/1990	1990	12	0.39896327	0.15038037	0.21353528
1/01/1991	1991	1	-	-	-
			0.05037801	0.05842845	0.09639403
1/02/1991	1991	2	-	-	-
			0.13904339	0.02078424	0.04503176
1/03/1991	1991	3	-	-	-
			0.22186437	0.01711018	-0.0487956
1/04/1991	1991	4	0.18919203	0.19676703	0.237094
1/05/1991	1991	5	0.39736972	0.12235799	0.16975304
1/06/1991	1991	6	0.68754361	0.31359595	0.43496694
1/07/1991	1991	7	0.77184598	0.53503145	0.70739595
1/08/1991	1991	8	0.68207624	0.54464345	0.73084289
1/09/1991	1991	9	0.20088412	0.08945748	0.10636066
1/10/1991	1991	10	0.07493187	0.03006939	0.00451264
1/11/1991	1991	11	-	-	-
			0.13988039	0.02157263	0.03484681

1/12/1991	1991	12	-	-	-
			0.06821603	0.01646633	0.04987601
1/01/1992	1992	1	0.64279843	0.22284881	0.32724308
1/02/1992	1992	2	0.65227383	0.16880502	0.25913091
1/03/1992	1992	3	0.39483575	0.14609484	0.22716383
1/04/1992	1992	4	0.64170597	0.34647688	0.4891346
1/05/1992	1992	5	0.80371244	0.32425474	0.45461059
1/06/1992	1992	6	0.83560902	0.47361676	0.62513017
1/07/1992	1992	7	0.80692476	0.54385343	0.73045035
1/08/1992	1992	8	0.69532944	0.45625212	0.63368332
1/09/1992	1992	9	0.67889409	0.22475982	0.32990105
1/10/1992	1992	10	0.67767696	0.24536139	0.35753228
1/11/1992	1992	11	0.21374556	0.11408236	0.1677969
1/12/1992	1992	12	0.66022533	0.27859466	0.39143448
1/01/1993	1993	1	0.04673097	-	-
				0.14080174	0.20158431
1/02/1993	1993	2	-	-	-
			0.09686029	0.18574331	0.26672005
1/03/1993	1993	3	0.06959288	-0.0658005	-
					0.08845887
1/04/1993	1993	4	0.19406379	-	-
				0.03579825	0.03563283
1/05/1993	1993	5	0.0599135	-	-
				0.08589175	0.11331338
1/06/1993	1993	6	0.67104719	0.53122487	0.68235418
1/07/1993	1993	7	0.7523105	0.55040008	0.70937218
1/08/1993	1993	8	0.69879639	0.37778162	0.52450542
1/09/1993	1993	9	0.13368854	0.08314783	0.08380872
1/10/1993	1993	10	0.23951292	0.06214183	0.07700786
1/11/1993	1993	11	-	-	-
			0.35038823	0.22930252	0.31217825
1/12/1993	1993	12	0.277441	-	-
				0.04210966	0.06810264
1/01/1994	1994	1	0.29333849	0.07737638	0.1179578
1/02/1994	1994	2	0.53044395	0.23396626	0.32362007
1/03/1994	1994	3	0.56241746	0.14883256	0.22048994
1/04/1994	1994	4	0.61558593	0.32599946	0.45578585
1/05/1994	1994	5	0.5416057	0.18272968	0.26498084
1/06/1994	1994	6	0.65097412	0.41704135	0.56223685
1/07/1994	1994	7	0.55319839	0.43339066	0.56904716
1/08/1994	1994	8	0.80188842	0.54189075	0.71142164
1/09/1994	1994	9	0.65358438	0.41354494	0.57778487
1/10/1994	1994	10	0.44503319	0.32953747	0.4353554
1/11/1994	1994	11	0.49034407	0.15551425	0.21533727

1/12/1994	1994	12	0.50049709	0.15126718	0.20561576
1/01/1995	1995	1	0.39529076	0.14525217	0.21506444
1/02/1995	1995	2	0.20938602	0.08736288	0.12299554
1/03/1995	1995	3	0.19096971	-0.022476	0.04049208
1/04/1995	1995	4	0.50409773	0.30536982	0.44166024
1/05/1995	1995	5	0.63371246	0.25405933	0.36792365
1/06/1995	1995	6	0.80794411	0.509434	0.66325997
1/07/1995	1995	7	0.74840162	0.41836942	0.57947703
1/08/1995	1995	8	0.57690186	0.3724511	0.51509875
1/09/1995	1995	9	0.69400638	0.38128911	0.51255195
1/10/1995	1995	10	0.36710014	0.23852841	0.32785194
1/11/1995	1995	11	0.17922751	0.04932135	0.06740888
1/12/1995	1995	12	0.09223255	0.18777602	0.23619527
1/01/1996	1996	1	0.36720852	0.03184271	0.04480655
1/02/1996	1996	2	0.38542681	0.13323057	0.21371052
1/03/1996	1996	3	0.02465514	0.01524378	0.04609597
1/04/1996	1996	4	0.58998555	0.18099793	0.2726815
1/05/1996	1996	5	0.67157353	0.21565936	0.30727808
1/06/1996	1996	6	0.71128838	0.37846557	0.52844656
1/07/1996	1996	7	0.73338276	0.49172276	0.6724997
1/08/1996	1996	8	0.72419296	0.39123862	0.55204131
1/09/1996	1996	9	0.59340798	0.18485359	0.27191718
1/10/1996	1996	10	0.20231568	0.17068056	0.26642783
1/11/1996	1996	11	0.32306763	0.15568691	0.24337499
1/12/1996	1996	12	0.23921111	0.14730571	0.21893996
1/01/1997	1997	1	0.04614029	0.07911841	-0.1140904
1/02/1997	1997	2	0.38199621	0.11681287	0.1885911
1/03/1997	1997	3	0.3222346	0.04944298	0.0768734
1/04/1997	1997	4	0.3977876	0.16283583	0.24977621
1/05/1997	1997	5	0.5809334	0.12988552	0.21029359
1/06/1997	1997	6	0.52309843	0.25135006	0.36827954
1/07/1997	1997	7	0.50489652	0.53222695	0.71094227
1/08/1997	1997	8	0.81315969	0.58825954	0.78442327
1/09/1997	1997	9	0.67105074	0.1993489	0.27567473
1/10/1997	1997	10	0.10234361	0.03484593	0.05788893
1/11/1997	1997	11	0.24606269	0.17810105	0.26085593
1/12/1997	1997	12	0.46697827	0.07462274	0.08921464
1/01/1998	1998	1	0.41976898	0.18266724	0.26656102
1/02/1998	1998	2	0.45622171	0.19127582	0.27442658
1/03/1998	1998	3	0.08950209	0.06995292	0.09182693

1/04/1998	1998	4	0.48389224	0.27171145	0.36550403
1/05/1998	1998	5	0.45348311	0.28628398	0.40216866
1/06/1998	1998	6	0.79528841	0.56430348	0.73475557
1/07/1998	1998	7	0.71931348	0.48079739	0.66154154
1/08/1998	1998	8	0.75507409	0.25376748	0.37075223
1/09/1998	1998	9	0.32984546	0.22218208	0.30562236
1/10/1998	1998	10	0.31966758	0.3168282	0.44972789
1/11/1998	1998	11	0.25169829	0.19971783	0.27312014
1/12/1998	1998	12	0.099029	0.09003428	0.1293009
1/01/1999	1999	1	0.17188617	0.12027498	0.17557644
1/02/1999	1999	2	0.20097639	0.0090301	0.03409414
1/03/1999	1999	3	0.11502115	-	-
1/04/1999	1999	4	0.63927834	0.33517311	0.46601316
1/05/1999	1999	5	0.66141778	0.26706346	0.37967174
1/06/1999	1999	6	0.65257846	0.35777662	0.50663053
1/07/1999	1999	7	0.67229472	0.49058656	0.63979853
1/08/1999	1999	8	0.59400898	0.41385662	0.56454233
1/09/1999	1999	9	0.21593313	0.15343416	0.19720212
1/10/1999	1999	10	0.16611364	0.11224681	0.16945876
1/11/1999	1999	11	0.17581622	0.1036921	0.15638393
1/12/1999	1999	12	0.16804524	0.07929037	0.11288888
1/01/2000	2000	1	0.17500916	0.09309861	0.11957561
1/02/2000	2000	2	-	-	-
1/03/2000	2000	3	0.05519985	0.05375004	0.07959111
1/04/2000	2000	4	0.18671637	0.06322204	0.10669497
1/05/2000	2000	5	0.61351429	0.22706133	0.31686667
1/06/2000	2000	6	0.78216173	0.4411315	0.5859366
1/07/2000	2000	7	0.7913759	0.45072836	0.62308248
1/08/2000	2000	8	0.79237519	0.55474741	0.74675126
1/09/2000	2000	9	0.80918784	0.57194831	0.74899583
1/10/2000	2000	10	0.51159924	0.21681232	0.32617845
1/11/2000	2000	11	0.47219955	0.18010226	0.26973584
1/12/2000	2000	12	0.58342992	0.33294002	0.45036634
1/01/2001	2001	1	0.4566724	0.25727442	0.33889425
1/02/2001	2001	2	0.21406059	0.1647835	0.24070946
1/03/2001	2001	3	0.17434416	0.13964171	0.19212996
1/04/2001	2001	4	-0.1062243	0.07381224	0.11573862
1/05/2001	2001	5	0.77348996	0.34299766	0.46830927
1/06/2001	2001	6	0.57136882	0.24122297	0.33471449
1/07/2001	2001	7	0.75500766	0.55164374	0.73429132

1/07/2001	2001	7	0.78934962	0.49761202	0.66550561
1/08/2001	2001	8	0.76939641	0.6052402	0.78053111
1/09/2001	2001	9	0.38474709	0.17588123	0.26511278
1/10/2001	2001	10	0.38732158	0.22426658	0.28985047
1/11/2001	2001	11	0.37418118	0.19977283	0.30236927
1/12/2001	2001	12	0.25069375	0.21779653	0.27916041
1/01/2002	2002	1	-	-	-
			0.09984212	0.06847683	0.11058453
1/02/2002	2002	2	-0.0024597	0.02670571	-0.0473752
1/03/2002	2002	3	0.30907009	0.09865359	0.13149646
1/04/2002	2002	4	0.07023024	0.09306729	0.12767003
1/05/2002	2002	5	0.30960935	0.27103127	0.36928784
1/06/2002	2002	6	0.34349753	0.46060669	0.61030047
1/07/2002	2002	7	0.43548747	0.40103592	0.53075065
1/08/2002	2002	8	0.49659901	0.5124609	0.67775604
1/09/2002	2002	9	0.32349967	0.11083403	0.15424819
1/10/2002	2002	10	0.37294028	0.16388709	0.22604168
1/11/2002	2002	11	0.41617179	0.11394053	0.14637372
1/12/2002	2002	12	0.10881885	0.18451353	0.21778791
1/01/2003	2003	1	-	0.09612963	0.12814614
			0.00732417		
1/02/2003	2003	2	0.31008945	0.12588663	0.18120414
1/03/2003	2003	3	0.18652906	0.04431097	0.06715123
1/04/2003	2003	4	0.33139539	0.19960251	0.27043884
1/05/2003	2003	5	0.66752483	0.34030666	0.46510831
1/06/2003	2003	6	0.69074582	0.28919264	0.40846295
1/07/2003	2003	7	0.74491988	0.50984595	0.67811246
1/08/2003	2003	8	0.6772413	0.47021768	0.63956677
1/09/2003	2003	9	0.46647933	0.14304404	0.2160045
1/10/2003	2003	10	0.03869704	0.04846497	0.06988006
1/11/2003	2003	11	0.00082791	0.0318282	0.04866477
1/12/2003	2003	12	0.12282383	0.13477776	0.18840599
1/01/2004	2004	1	0.05276213	0.03529958	0.04343733
1/02/2004	2004	2	0.3623239	0.23446098	0.32095454
1/03/2004	2004	3	0.38318627	0.13498617	0.17963999
1/04/2004	2004	4	0.13163373	0.07750195	0.11805994
1/05/2004	2004	5	0.69763733	0.35913101	0.48369698
1/06/2004	2004	6	0.78746057	0.62997487	0.7888853
1/07/2004	2004	7	0.79351281	0.47073613	0.63434718
1/08/2004	2004	8	0.7637693	0.62050809	0.80646046
1/09/2004	2004	9	0.52695082	0.24768216	0.33096422

1/10/2004	2004	10	- 0.05293644	- -0.0914133	- 0.12928643
1/11/2004	2004	11	0.08291504	0.08215679	0.11096169
1/12/2004	2004	12	- 0.07936048	- 0.12091821	- 0.16777968
1/01/2005	2005	1	0.1674645	0.08013795	0.09608486
1/02/2005	2005	2	0.06235403	- 0.00801902	- 0.02193887
1/03/2005	2005	3	0.29871035	0.19401014	0.28573765
1/04/2005	2005	4	0.57328349	0.23519094	0.32819513
1/05/2005	2005	5	0.33641681	0.10255456	0.14581669
1/06/2005	2005	6	0.75496737	0.43917961	0.60726173
1/07/2005	2005	7	0.8567739	0.47749875	0.64551828
1/08/2005	2005	8	0.74558062	0.35810339	0.49811313
1/09/2005	2005	9	0.64192894	0.26677506	0.38295436
1/10/2005	2005	10	0.07473451	0.07749003	0.10489663
1/11/2005	2005	11	0.26010398	0.06923665	0.10293763
1/12/2005	2005	12	- 0.08005384	- 0.02887358	- 0.02961434
1/01/2006	2006	1	0.20491674	0.13973426	0.20385041
1/02/2006	2006	2	0.18710424	0.05704485	0.08184393
1/03/2006	2006	3	0.26823194	0.15432614	0.23755939
1/04/2006	2006	4	0.29373066	0.0856898	0.13119832
1/05/2006	2006	5	0.50125091	0.27663799	0.37613952
1/06/2006	2006	6	0.71327676	0.46147277	0.61995341
1/07/2006	2006	7	0.76958405	0.62546982	0.81587646
1/08/2006	2006	8	0.7949272	0.48205966	0.63927458
1/09/2006	2006	9	0.76187354	0.29053813	0.41470909
1/10/2006	2006	10	0.36101042	0.0535676	0.08941559
1/11/2006	2006	11	0.09277211	- 0.06794371	- 0.08605233
1/12/2006	2006	12	- 0.13108657	- 0.09482961	- 0.15435721
1/01/2007	2007	1	0.06153918	0.07227543	0.09369132
1/02/2007	2007	2	0.10260881	0.0419908	0.05728253
1/03/2007	2007	3	0.28492946	0.11806462	0.1639122
1/04/2007	2007	4	0.18185088	0.01285898	0.03420959
1/05/2007	2007	5	0.6071999	0.16973855	0.23513825
1/06/2007	2007	6	0.7823517	0.5332453	0.69671945
1/07/2007	2007	7	0.73055907	0.47974286	0.66072131
1/08/2007	2007	8	0.70474391	0.47740799	0.66911659
1/09/2007	2007	9	0.72726435	0.39399309	0.51127935
1/10/2007	2007	10	0.01095924	0.16866445	0.2282856

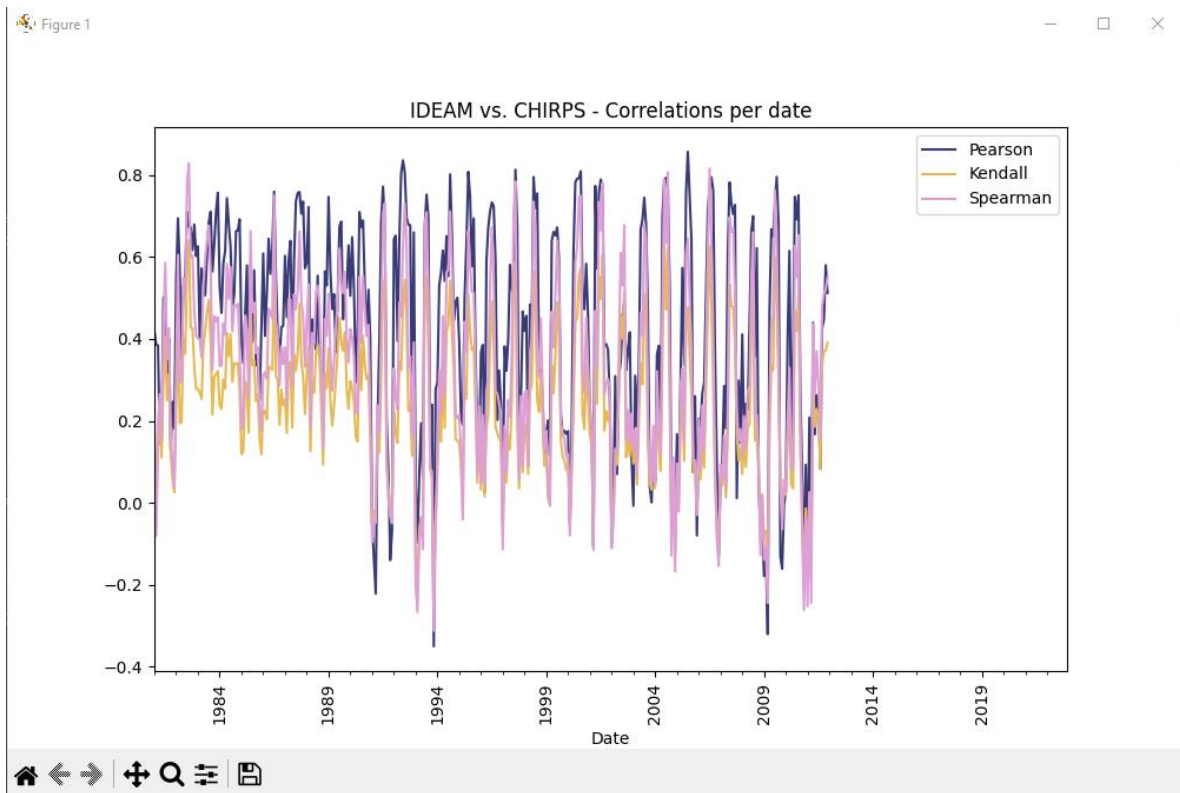
1/11/2007	2007	11	0.29836486	0.10418715	0.15247354
1/12/2007	2007	12	0.14712088	0.13028944	0.17979733
1/01/2008	2008	1	0.41113974	0.06998546	0.11167411
1/02/2008	2008	2	0.15500961	0.14973472	0.21109003
1/03/2008	2008	3	0.24219942	0.08767447	0.13671234
1/04/2008	2008	4	0.22852911	0.18236959	0.2709296
1/05/2008	2008	5	0.43580603	0.19203607	0.28416864
1/06/2008	2008	6	0.66202965	0.41923401	0.54763593
1/07/2008	2008	7	0.69978324	0.51336146	0.66007831
1/08/2008	2008	8	0.35661106	0.15206019	0.20290073
1/09/2008	2008	9	0.62161779	0.15691562	0.21462995
1/10/2008	2008	10	0.05412567	0.08616305	0.12155644
1/11/2008	2008	11	-0.065772	-	-
1/12/2008	2008	12	0.05717178	0.0206275	0.01552723
1/01/2009	2009	1	-0.1788586	0.08156233	0.13910385
1/02/2009	2009	2	-0.120375	0.06800427	0.10935188
1/03/2009	2009	3	0.32075391	0.17740004	0.24486731
1/04/2009	2009	4	0.46591682	0.1598885	0.23271446
1/05/2009	2009	5	0.66767134	0.33521599	0.44030069
1/06/2009	2009	6	0.650184	0.32291026	0.45186046
1/07/2009	2009	7	0.73097045	0.60027317	0.76252468
1/08/2009	2009	8	0.79552789	0.51507308	0.65938676
1/09/2009	2009	9	0.67702254	0.27878114	0.33681676
1/10/2009	2009	10	0.13002223	0.03874923	0.04211876
1/11/2009	2009	11	0.16111696	0.03619682	0.06478729
1/12/2009	2009	12	0.00667818	0.03826542	0.05625231
1/01/2010	2010	1	0.02918532	0.01942399	0.02537637
1/02/2010	2010	2	0.39942123	0.14808149	0.20772618
1/03/2010	2010	3	0.61494528	0.22630518	0.32930838
1/04/2010	2010	4	0.15133991	0.04289184	0.08140665
1/05/2010	2010	5	0.36573647	0.03535354	0.09037405
1/06/2010	2010	6	0.74695269	0.47058974	0.62754421
1/07/2010	2010	7	0.69193397	0.41936541	0.55180728
1/08/2010	2010	8	0.75061823	0.50933813	0.6531478
1/09/2010	2010	9	0.2726596	0.1239783	0.20349015

1/10/2010	2010	10	0.08030092	- 0.03409774	- 0.06092414
1/11/2010	2010	11	0.16562884	- 0.20537333	- 0.26201591
1/12/2010	2010	12	0.09276758	- 0.01373203	- 0.03667932
1/01/2011	2011	1	0.16444896	- 0.16888061	- 0.25262602
1/02/2011	2011	2	0.20796447	- 0.02450423	- 0.02565558
1/03/2011	2011	3	0.10494105	- 0.17023911	- 0.24489174
1/04/2011	2011	4	0.43990589	- 0.29519357	- 0.4375095
1/05/2011	2011	5	0.16726355	- 0.18554488	- 0.26590703
1/06/2011	2011	6	0.26271259	- 0.22875817	- 0.37048504
1/07/2011	2011	7	0.25297717	- 0.20588235	- 0.28921569
1/08/2011	2011	8	0.0829585	- 0.08333333	- 0.15588235
1/09/2011	2011	9	0.42476992	- 0.33333333	- 0.47857143
1/10/2011	2011	10	0.44761637	- 0.37142857	- 0.51071429
1/11/2011	2011	11	0.5799864	- 0.37142857	- 0.52142857
1/12/2011	2011	12	0.51206762	- 0.39047619	- 0.55
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1/02/2012	2012	2			
1/03/2012	2012	3			
1/04/2012	2012	4			
1/05/2012	2012	5			
1/06/2012	2012	6			
1/07/2012	2012	7			
1/08/2012	2012	8			
1/09/2012	2012	9			
1/10/2012	2012	10			
1/11/2012	2012	11			
1/12/2012	2012	12			
1/01/2013	2013	1			
1/02/2013	2013	2			
1/03/2013	2013	3			
1/04/2013	2013	4			
1/05/2013	2013	5			
1/06/2013	2013	6			
1/07/2013	2013	7			
1/08/2013	2013	8			
1/09/2013	2013	9			
1/10/2013	2013	10			
1/11/2013	2013	11			

1/12/2013	2013	12			
1/01/2014	2014	1			
1/02/2014	2014	2			
1/03/2014	2014	3			
1/04/2014	2014	4			
1/05/2014	2014	5			
1/06/2014	2014	6			
1/07/2014	2014	7			
1/08/2014	2014	8			
1/09/2014	2014	9			
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1/03/2015	2015	3			
1/04/2015	2015	4			
1/05/2015	2015	5			
1/06/2015	2015	6			
1/07/2015	2015	7			
1/08/2015	2015	8			
1/09/2015	2015	9			
1/10/2015	2015	10			
1/11/2015	2015	11			
1/12/2015	2015	12			
1/01/2016	2016	1			
1/02/2016	2016	2			
1/03/2016	2016	3			
1/04/2016	2016	4			
1/05/2016	2016	5			
1/06/2016	2016	6			
1/07/2016	2016	7			
1/08/2016	2016	8			
1/09/2016	2016	9			
1/10/2016	2016	10			
1/11/2016	2016	11			
1/12/2016	2016	12			
1/01/2017	2017	1			
1/02/2017	2017	2			
1/03/2017	2017	3			
1/04/2017	2017	4			

1/05/2017	2017	5			
1/06/2017	2017	6			
1/07/2017	2017	7			
1/08/2017	2017	8			
1/09/2017	2017	9			
1/10/2017	2017	10			
1/11/2017	2017	11			
1/12/2017	2017	12			
1/01/2018	2018	1			
1/02/2018	2018	2			
1/03/2018	2018	3			
1/04/2018	2018	4			
1/05/2018	2018	5			
1/06/2018	2018	6			
1/07/2018	2018	7			
1/08/2018	2018	8			
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1/11/2018	2018	11			
1/12/2018	2018	12			
1/01/2019	2019	1			
1/02/2019	2019	2			
1/03/2019	2019	3			
1/04/2019	2019	4			
1/05/2019	2019	5			
1/06/2019	2019	6			
1/07/2019	2019	7			
1/08/2019	2019	8			
1/09/2019	2019	9			
1/10/2019	2019	10			
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1/12/2019	2019	12			
1/01/2020	2020	1			
1/02/2020	2020	2			
1/03/2020	2020	3			
1/04/2020	2020	4			
1/05/2020	2020	5			
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1/12/2020	2020	12			
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1/03/2021	2021	3			
1/04/2021	2021	4			
1/05/2021	2021	5			
1/06/2021	2021	6			
1/07/2021	2021	7			
1/08/2021	2021	8			
1/09/2021	2021	9			
1/10/2021	2021	10			
1/11/2021	2021	11			
1/12/2021	2021	12			
1/01/2022	2022	1			
1/02/2022	2022	2			
1/03/2022	2022	3			
1/04/2022	2022	4			
1/05/2022	2022	5			
1/06/2022	2022	6			
1/07/2022	2022	7			
1/08/2022	2022	8			
1/09/2022	2022	9			
1/10/2022	2022	10			
1/11/2022	2022	11			
1/12/2022	2022	12			

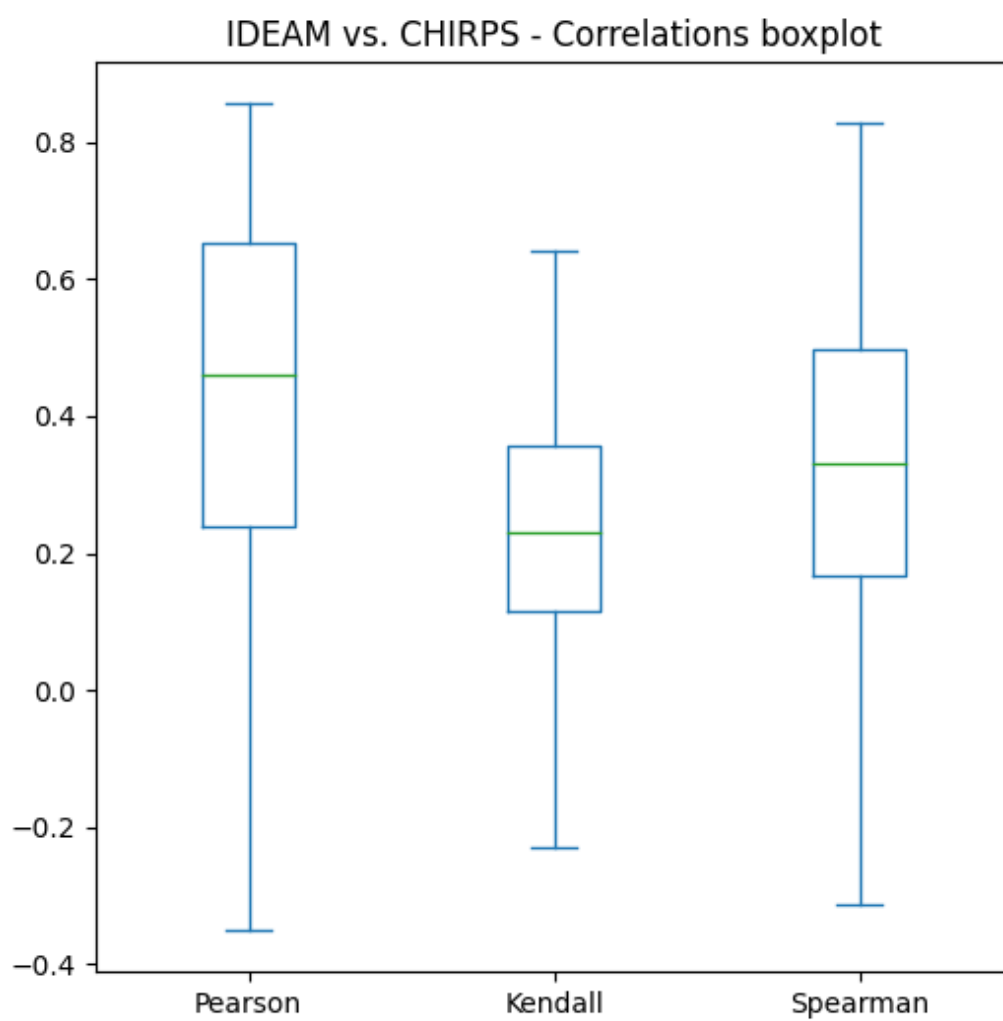


Los datos no presentan gran variación entre los diferentes métodos, sin embargo, llama la atención la ausencia de éstos a partir del año 2012

Tabla IDEAMJoinedChirpsCorrelationDateMean.csv

	0
Pearson	0.42711642
Kendall	0.23429062
Spearman	0.32446571

Figure 2



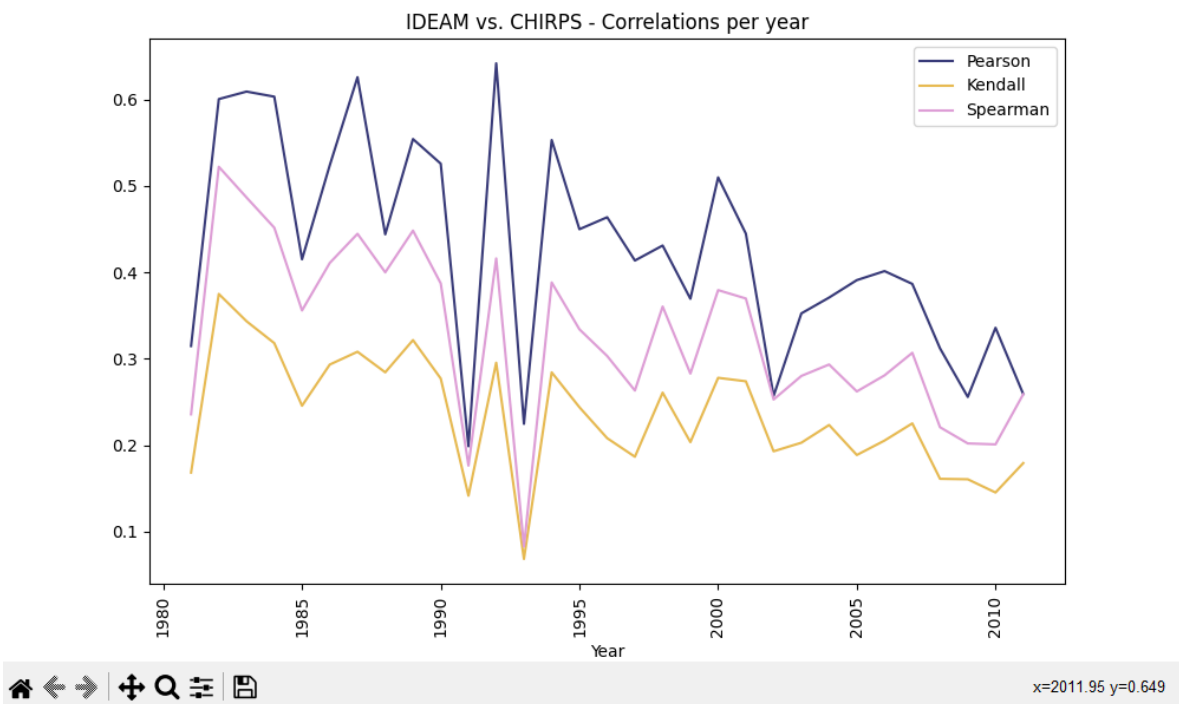
La caja Kendall es la más pequeña, mientras que Pearson es la más extensa, pero se encuentra ubicada hacia los datos superiores a 0.2. Por otro lado, Spearman está un poco más centrada.

Tabla IDEAMJoinedChirpsCorrelationYear.csv

Year	Pearson	Kendall	Spearman
1981	0.31476609	0.16822769	0.23572538
1982	0.60057587	0.37502286	0.5222331
1983	0.60927171	0.34341761	0.48666958
1984	0.60339519	0.31807419	0.45171143
1985	0.41510733	0.24562124	0.35591424
1986	0.52398485	0.29327995	0.41090753
1987	0.62595511	0.30813231	0.44465866
1988	0.44402294	0.28429824	0.40005561
1989	0.55432451	0.32163215	0.44830451
1990	0.52582944	0.27711607	0.38722752
1991	0.19870511	0.14146341	0.17633183
1992	0.64197763	0.29541674	0.41610096
1993	0.2246541	0.06827071	0.08258817
1994	0.5532426	0.28425758	0.38830279
1995	0.44993924	0.2438948	0.33408297
1996	0.46380967	0.20807734	0.30318501
1997	0.41370012	0.18655116	0.26322693
1998	0.43106537	0.26079351	0.36044232
1999	0.36944752	0.20350753	0.28287347
2000	0.50992015	0.27794304	0.37945727
2001	0.44481138	0.27392056	0.36974546
2002	0.25696854	0.19290402	0.25281277
2003	0.35249581	0.20280064	0.28009551
2004	0.37082125	0.22334218	0.29336179
2005	0.39102205	0.18860704	0.26216357
2006	0.401466	0.20531398	0.28078426
2007	0.38662435	0.22520489	0.30688559
2008	0.31199229	0.16101096	0.22073226
2009	0.25579068	0.16049944	0.20198871
2010	0.3358527	0.14517704	0.20088014
2011	0.25906937	0.17923029	0.25898764
2012			
2013			
2014			

2015			
2016			
2017			
2018			
2019			
2020			
2021			
2022			

Figure 3

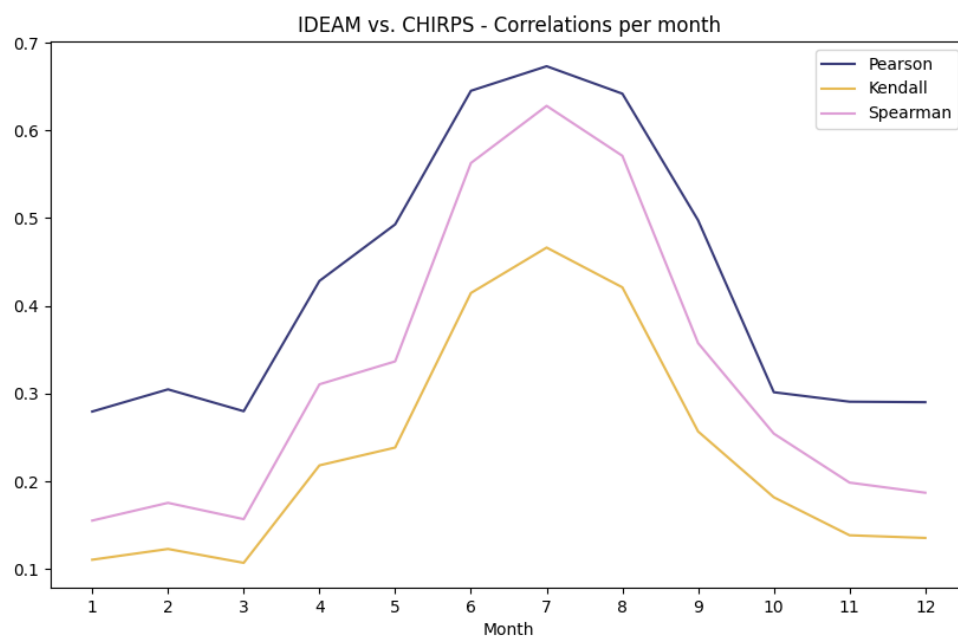


Aunque las tres líneas graficadas tienen patrones similares, se encuentra que los patrones de Pearson son los más altos, mientras los de Kendall son los más bajos. Nuevamente, se evidencia la ausencia de datos a partir del año 2012.

Tabla IDEAMJoinedChirpsCorrelationMonth.csv

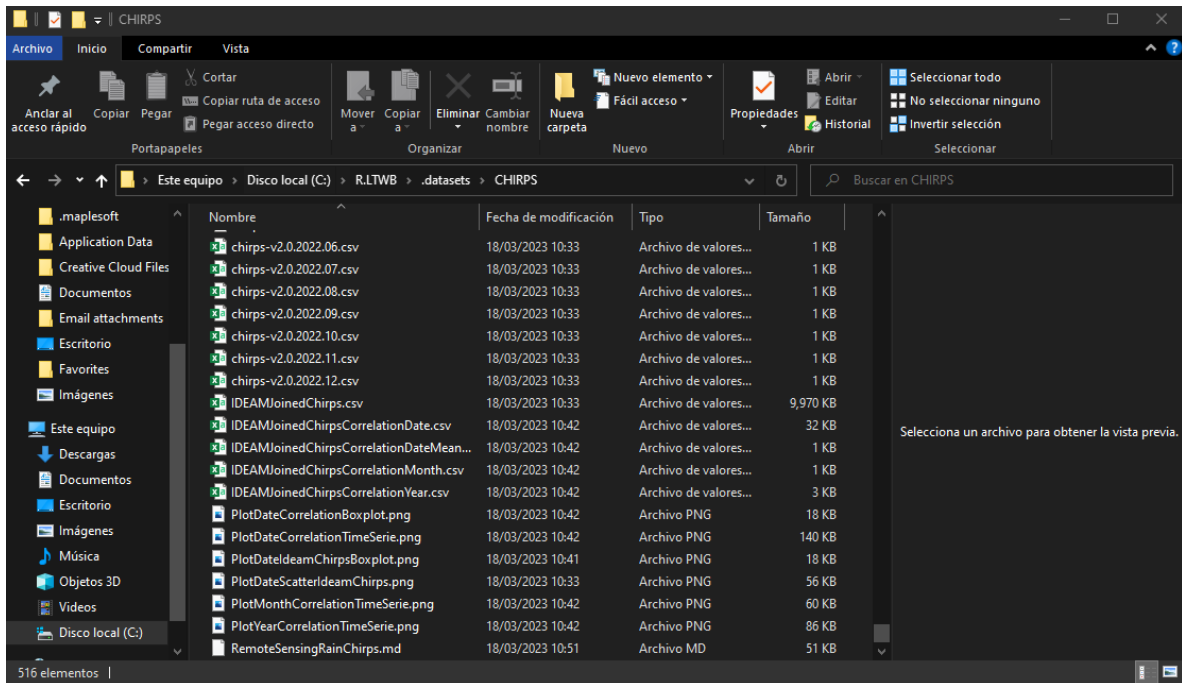
Month	Pearson	Kendall	Spearman
1	0.27950342	0.11057869	0.15520021
2	0.30476584	0.12282526	0.17540318
3	0.27987661	0.10702014	0.15682883
4	0.4284014	0.21813063	0.31053402
5	0.49286628	0.23843673	0.336672
6	0.6451172	0.41460067	0.56277341
7	0.67311479	0.46641745	0.62795438
8	0.6418461	0.42108801	0.57101118
9	0.49752469	0.25681177	0.35748667
10	0.30150721	0.18174969	0.25429794
11	0.2907112	0.13843556	0.19848082
12	0.29016228	0.13539283	0.18694586

Figure 4



Al igual que en la gráfica de Correlaciones por año, las tres líneas presentan patrones similares, teniendo a Pearson con los valores más altos, mientras que Kendall mantiene los más bajos.

Archivos generados



CORRECCIONES

Al corregir el archivo IDEAMJoined.csv (Eliminando el valor de la Fila 24715), se obtienen los siguientes resultados al ejecutar el script en Pycharm:

Figure 1

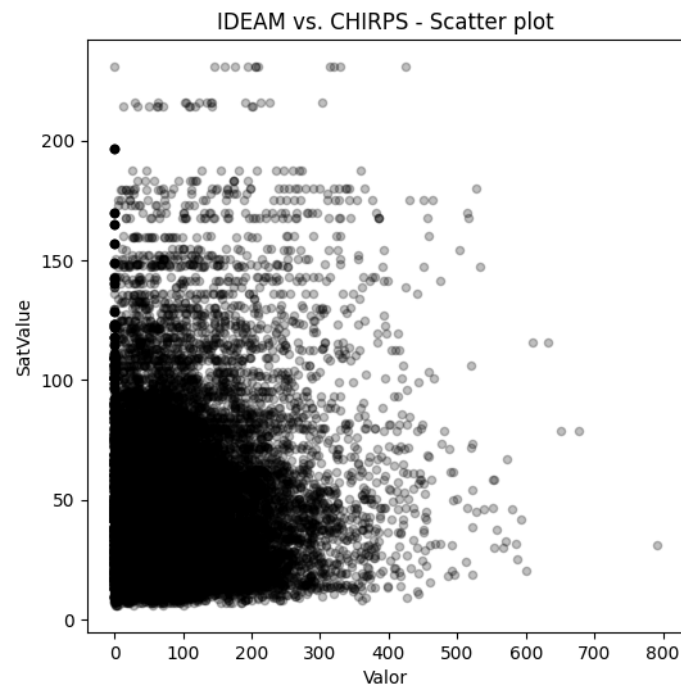


Figure 1

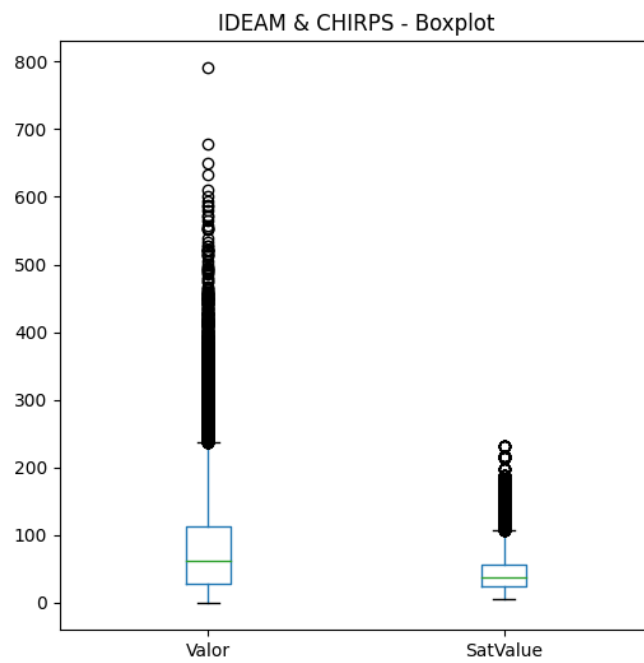


Figure 2

— □ ×

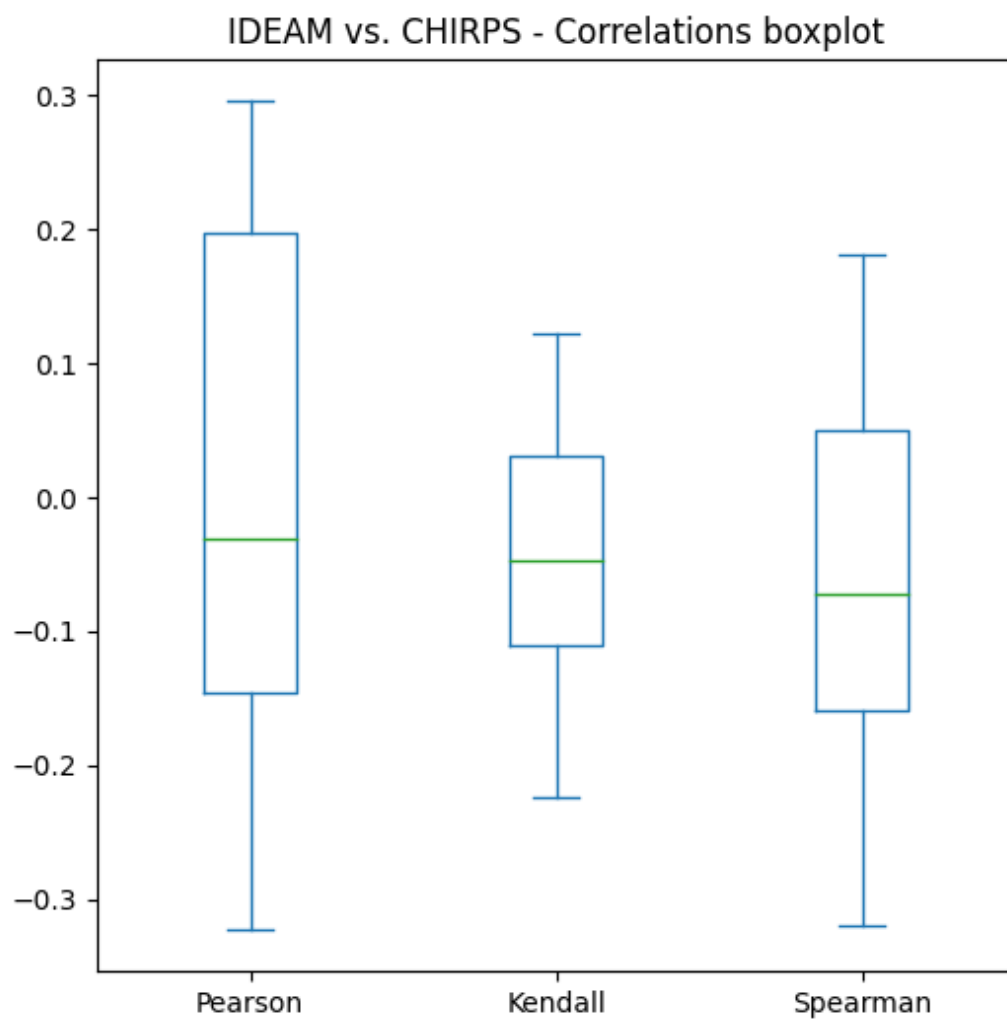


Figure 3

