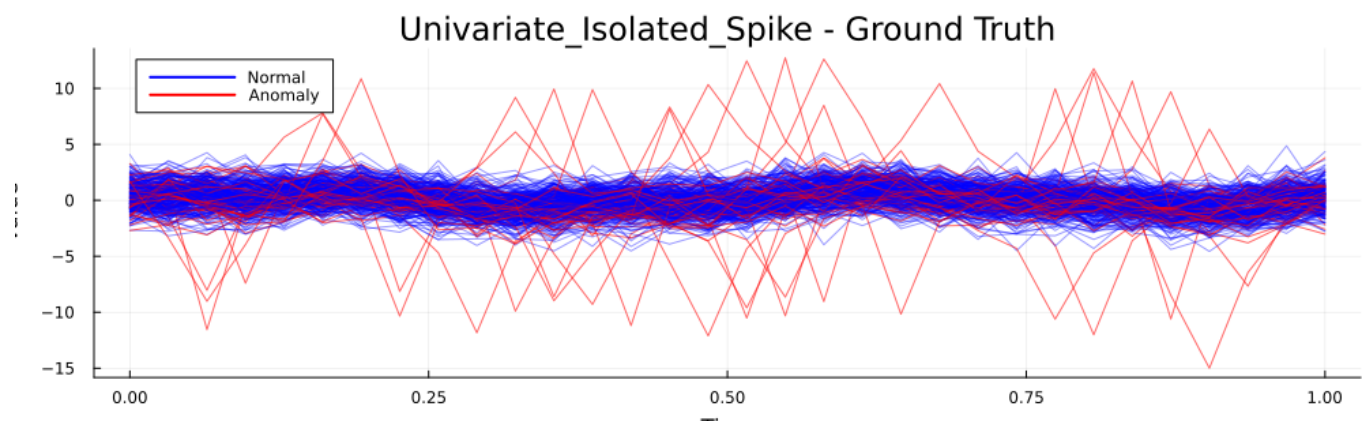


# Simulation Summary

## Univariate Isolated Spike



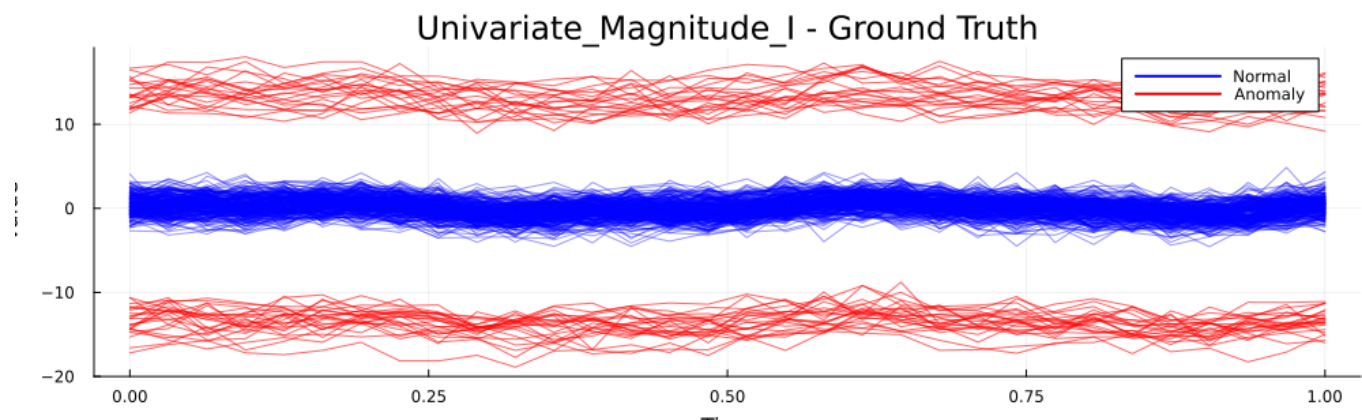
### Mean Results

Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
depth.FM	0.2265	0.7124	0.3355	0.5699	32	139	116	13
depth.RP	0.3445	0.7458	0.4599	0.7318	34	186	69	11
depth.RPD	0.838	0.8371	0.8333	0.9496	38	247	8	7
depth.RT	0.6466	0.7858	0.7034	0.9003	35	235	20	10
depth.mode	<b>0.9382</b>	<b>0.9604</b>	<b>0.9485</b>	<b>0.9843</b>	43	252	3	2
WICMAD deriv	0.7068	0.52	0.514	0.92	23	253	2	22
WICMAD raw	0.7662	0.7233	0.7178	0.9518	33	253	2	12

### Median Results

Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
depth.FM	0.2256	0.7333	0.3357	0.5733	33	139	116	12
depth.RP	0.3333	0.7556	0.4554	0.7417	34	190	65	11
depth.RPD	0.8438	0.8444	0.8333	0.95	38	248	7	7
depth.RT	0.6481	0.7778	0.703	0.9033	35	236	19	10
depth.mode	0.9375	0.9556	0.9545	0.9867	43	252	3	2
WICMAD deriv	0.9778	0.9333	0.6692	0.86	42	255	0	3
WICMAD raw	<b>1</b>	<b>0.9778</b>	<b>0.9888</b>	<b>0.9967</b>	44	255	0	1

# Univariate Magnitude I



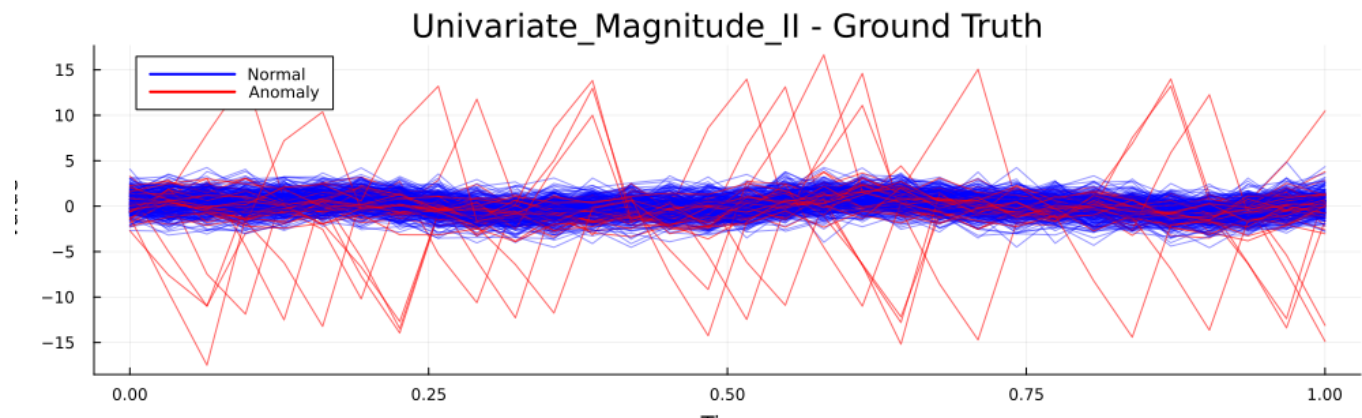
## Mean Results

Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
depth.FM	1	1	1	1	45	255	0	0
depth.RP	0.9993	1	0.9997	0.9999	45	255	0	0
depth.RPD	0.7726	0.8644	0.8102	0.9364	39	242	13	6
depth.RT	0.7711	0.9009	0.8271	0.9421	41	242	13	4
depth.mode	1	1	1	1	45	255	0	0
WICMAD deriv	0.4692	0.48	0.4739	0.9192	22	254	1	23
WICMAD raw	0.7376	0.82	0.7666	0.9502	37	248	7	8

## Median Results

Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
depth.FM	1	1	1	1	45	255	0	0
depth.RP	1	1	1	1	45	255	0	0
depth.RPD	0.7942	0.8667	0.8276	0.9467	39	245	10	6
depth.RT	0.7632	0.9111	0.8186	0.9433	41	243	12	4
depth.mode	1	1	1	1	45	255	0	0
WICMAD deriv	0	0	0	0.85	0	255	0	45
WICMAD raw	1	1	1	1	45	255	0	0

# Univariate Magnitude II



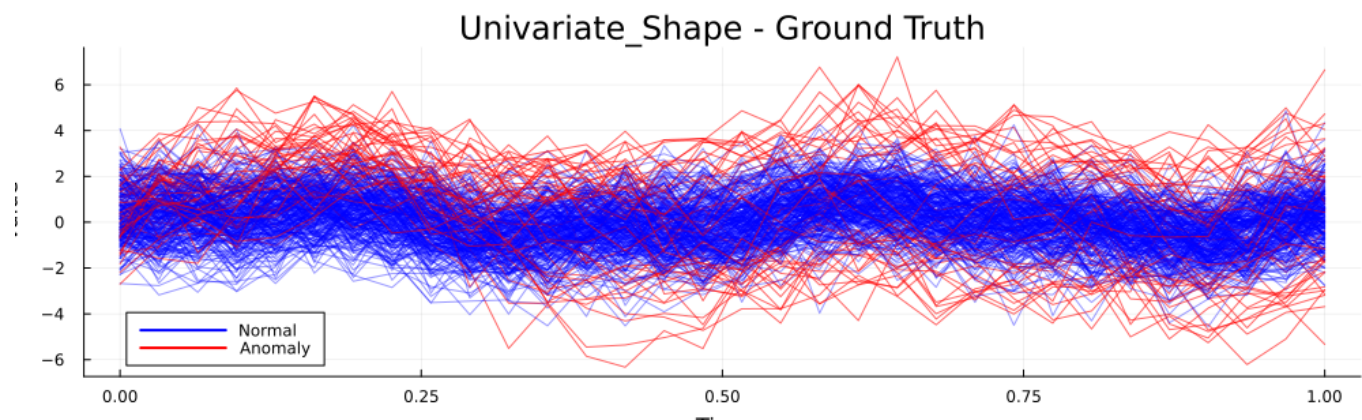
## Mean Results

Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
depth.FM	0.2225	0.7198	0.3331	0.5608	32	136	119	13
depth.RP	0.4434	0.7931	0.5582	0.8068	36	206	49	9
depth.RPD	0.9369	0.9327	0.9335	0.9801	42	252	3	3
depth.RT	0.7771	0.8822	0.8238	0.9431	40	243	12	5
depth.mode	<b>0.9886</b>	<b>0.9944</b>	<b>0.9914</b>	<b>0.9974</b>	45	254	1	0
WICMAD deriv	0.6801	0.4389	0.4466	0.9151	20	255	0	25
WICMAD raw	0.8196	0.7853	0.7573	0.9538	35	251	4	10

## Median Results

Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
depth.FM	0.213	0.7556	0.3302	0.5617	34	134	120	11
depth.RP	0.4331	0.8111	0.5516	0.815	36	208	47	8
depth.RPD	0.9362	0.9444	0.9348	0.98	42	252	3	2
depth.RT	0.7736	0.8889	0.823	0.9433	40	244	12	5
depth.mode	<b>1</b>	<b>1</b>	0.989	0.9967	45	255	0	0
WICMAD deriv	<b>1</b>	0.0444	0.0851	0.8567	2	255	0	43
WICMAD raw	<b>1</b>	<b>1</b>	<b>1</b>	<b>1</b>	45	255	0	0

# Univariate Shape



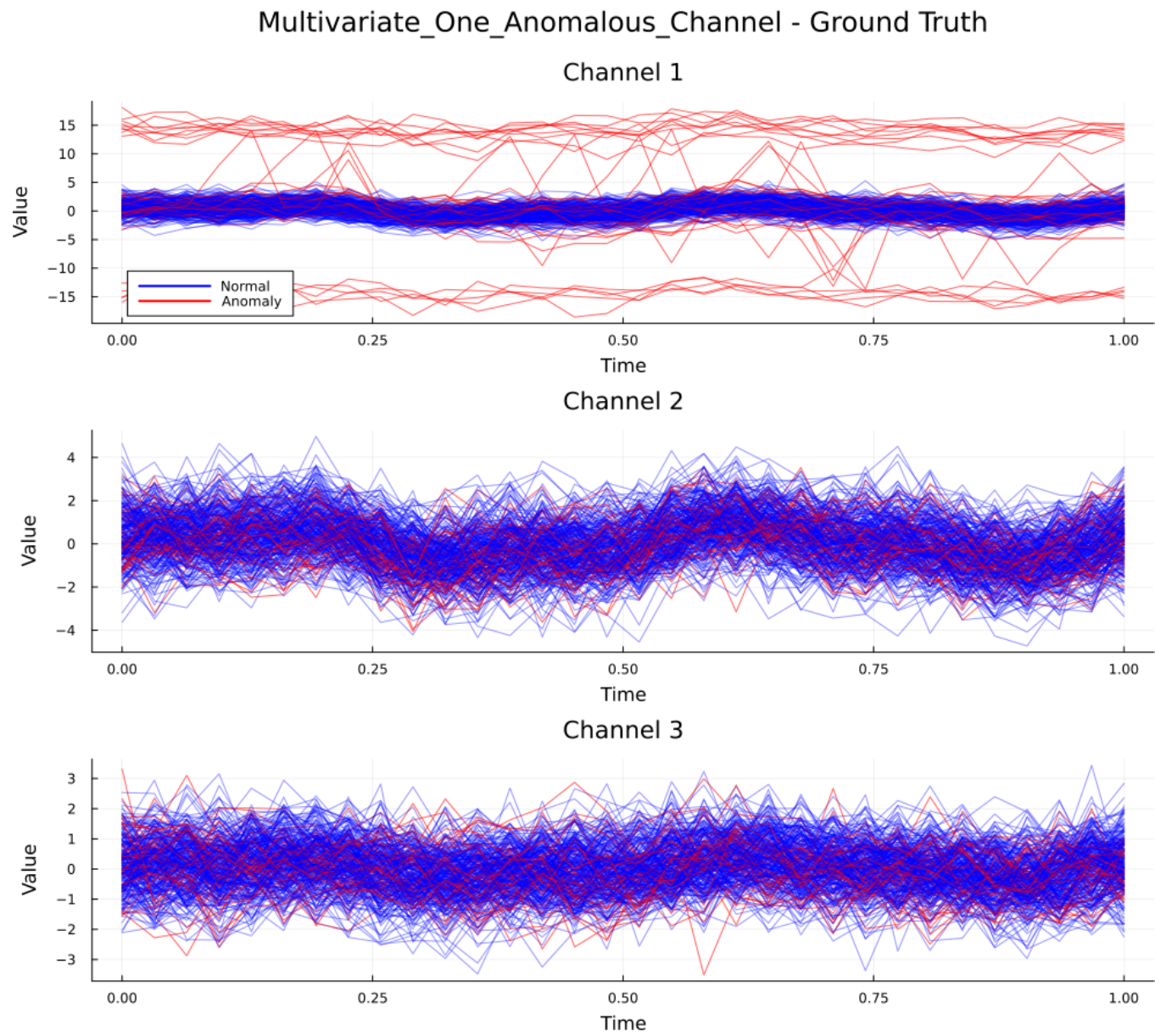
## Mean Results

Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
depth.FM	0.8828	<b>0.9318</b>	0.905	0.9705	42	249	6	3
depth.RP	0.5967	0.8531	0.693	0.8839	38	227	28	7
depth.RPD	0.2526	0.6211	0.343	0.6325	28	162	93	17
depth.RT	0.6635	0.8718	0.7493	0.9119	39	234	21	6
depth.mode	<b>0.961</b>	<b>0.9593</b>	<b>0.9595</b>	<b>0.9878</b>	43	253	2	2
WICMAD deriv	0.3955	0.3011	0.2751	0.8794	14	250	5	31
WICMAD raw	0.9104	0.786	0.835	0.96	35	253	2	10

## Median Results

Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
depth.FM	0.8776	<b>0.9333</b>	0.9072	0.97	42	249	6	3
depth.RP	0.5932	0.8667	0.699	0.89	39	228	26	6
depth.RPD	0.2347	0.6222	0.3385	0.6467	28	166	89	17
depth.RT	0.6607	0.8667	0.75	0.9133	39	235	20	6
depth.mode	0.9762	<b>0.9556</b>	<b>0.9659</b>	<b>0.99</b>	43	254	1	2
WICMAD deriv	0	0	0	0.85	0	255	0	45
WICMAD raw	<b>1</b>	0.8444	0.9157	0.9767	38	255	0	7

# Multivariate One Anomalous Channel



## Mean Results

Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
depth.FMp	0.5849	0.4924	0.51	0.8582	22	235	20	23
depth.RPp	0.3183	0.5956	0.3993	0.7246	27	191	64	18
fdaoutlier.msplot	0.15	1	0.2609	0.15	45	0	255	0
mrfDepth.fOutl	1	1	1	1	45	255	0	0
WICMAD raw	0.7998	0.876	0.7857	0.9371	39	242	13	6

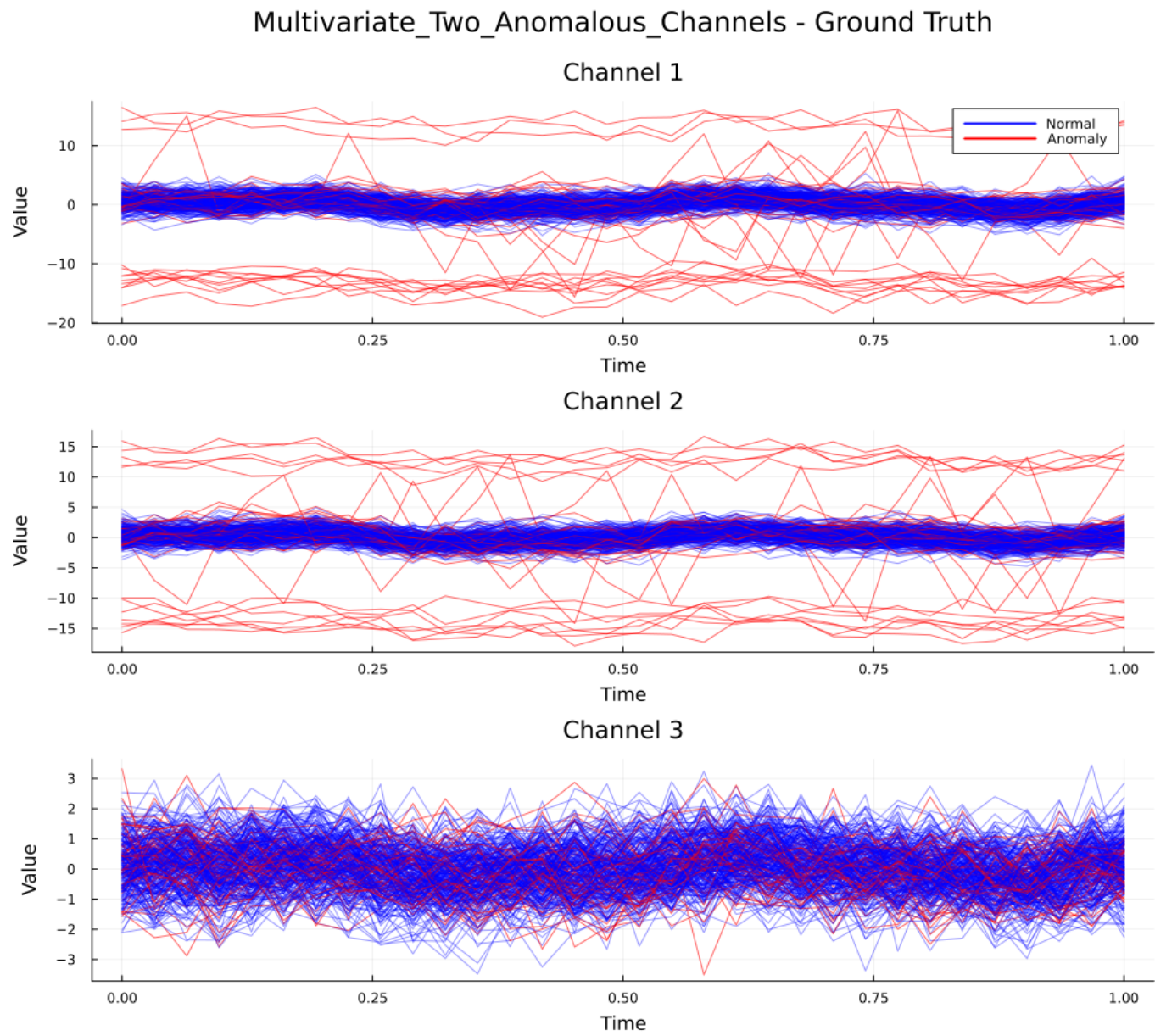
## Median Results

Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
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Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
depth.FMp	0.5505	0.4889	0.505	0.8633	22	237	18	23
depth.RPp	0.301	0.6	0.394	0.7267	27	192	63	18
fdaoutlier.msplot	0.15	1	0.2609	0.15	45	0	255	0
mrfDepth.fOutl	1	1	1	1	45	255	0	0
WICMAD raw	1	1	0.9156	0.9783	45	255	0	0



Multivariate Two Anomalous Channels



Mean Results

Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
depth.FMp	0.7384	0.5653	0.6282	0.8993	25	244	11	20
depth.RPp	0.583	0.644	0.5907	0.8629	29	230	25	16
fdaoutlier.msplot	0.15	1	0.2609	0.15	45	0	255	0
mrfDepth.fOutl	0.9996	0.9998	0.9997	0.9999	45	255	0	0
WICMAD raw	0.7021	0.8596	0.7392	0.9245	39	239	16	6

Median Results

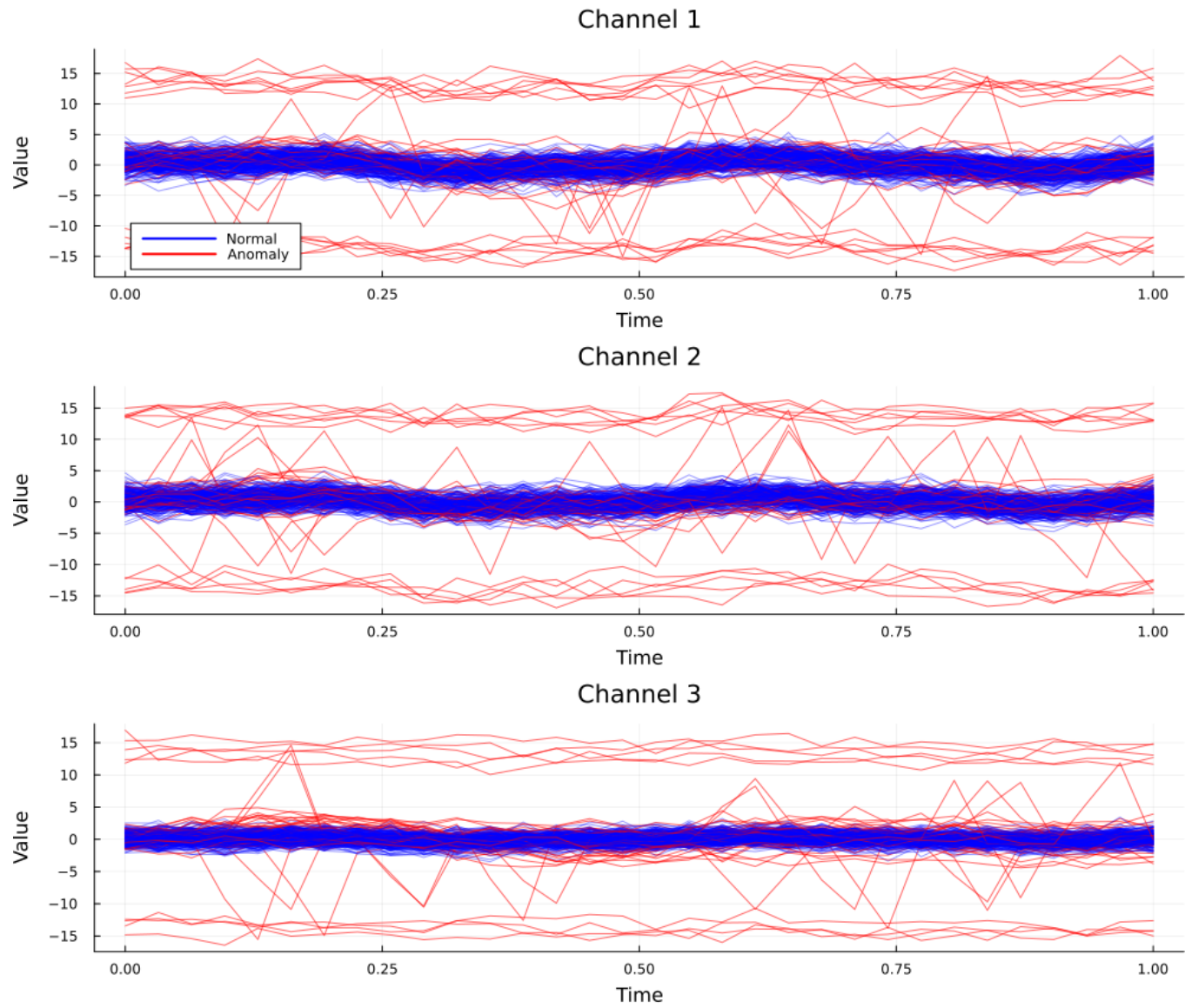
Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
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Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
depth.FMp	0.7534	0.5556	0.6234	0.9033	25	247	8	20
depth.RPp	0.5676	0.6444	0.5926	0.8767	29	232	22	16
fdaoutlier.msplot	0.15	1	0.2609	0.15	45	0	255	0
mrfDepth.fOutl	1	1	1	1	45	255	0	0
WICMAD raw	0.5422	1	0.7031	0.8733	45	255	0	0



# Multivariate Three Anomalous Channels

Multivariate\_Three\_Anomalous\_Channels - Ground Truth



## Mean Results

Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
depth.FMp	0.9701	0.9851	0.9773	0.9931	44	254	1	1
depth.RPp	0.9006	0.9064	0.9014	0.9701	41	250	5	4
fdaoutlier.msplot	0.15	1	0.2609	0.15	45	0	255	0
mrfDepth.fOutl	1	1	1	1	45	255	0	0
WICMAD raw	0.7572	0.8176	0.7367	0.9359	37	244	11	8

## Median Results

Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
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Method	Precision	Recall	F1	Accuracy	TP	TN	FP	FN
depth.FMp	0.9778	1	0.9783	0.9933	45	254	1	0
depth.RPp	0.9121	0.9111	0.904	0.97	41	251	4	4
fdaoutlier.msplot	0.15	1	0.2609	0.15	45	0	255	0
mrfDepth.fOutl	1	1	1	1	45	255	0	0
WICMAD raw	1	1	1	1	45	255	0	0