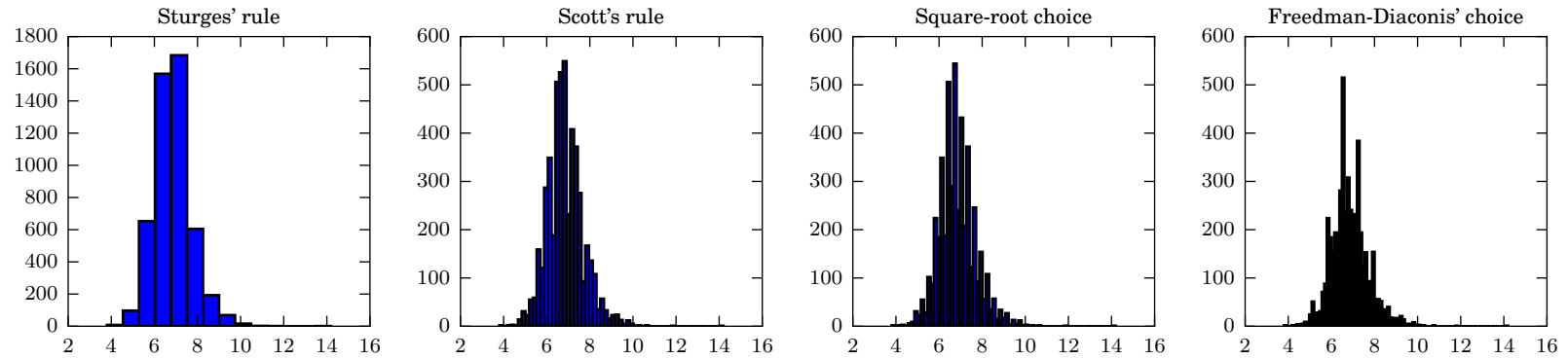
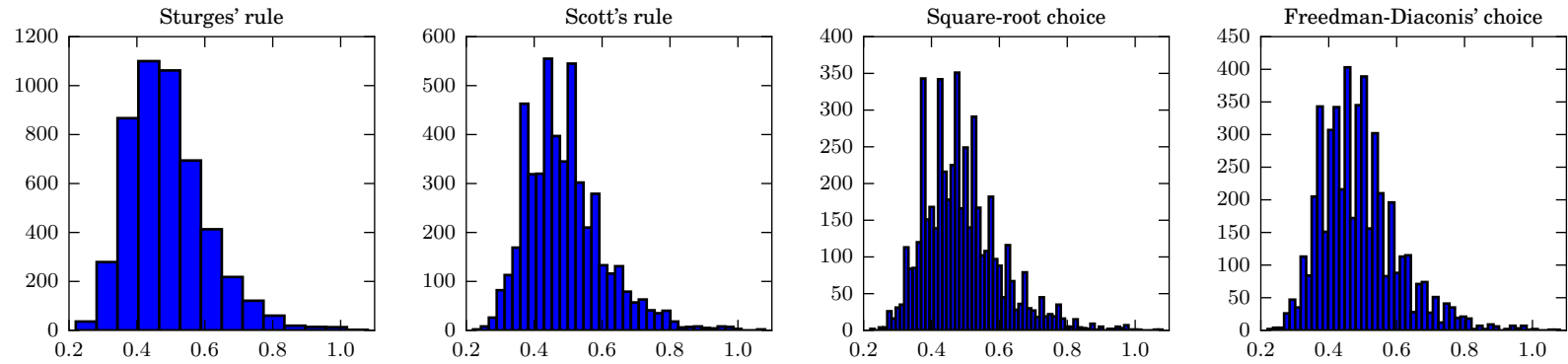


## 0.1 Histograms of attributes using different binning functions

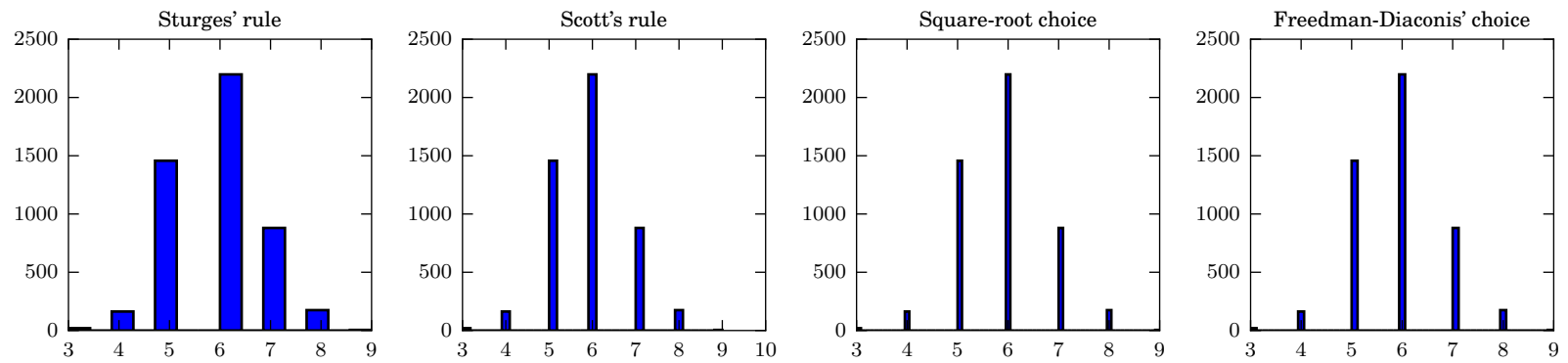
### 0.1.1 fixed acidity



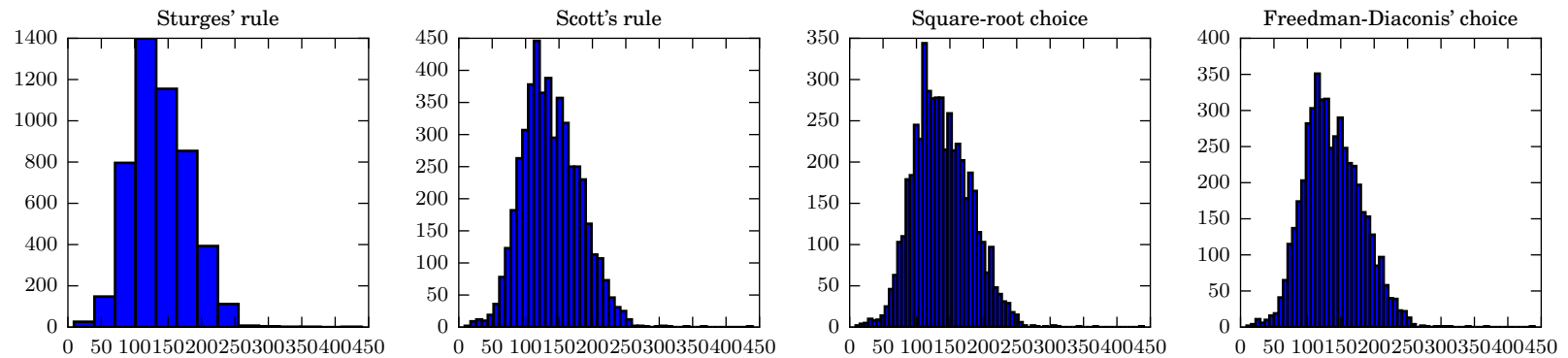
### 0.1.2 sulphates



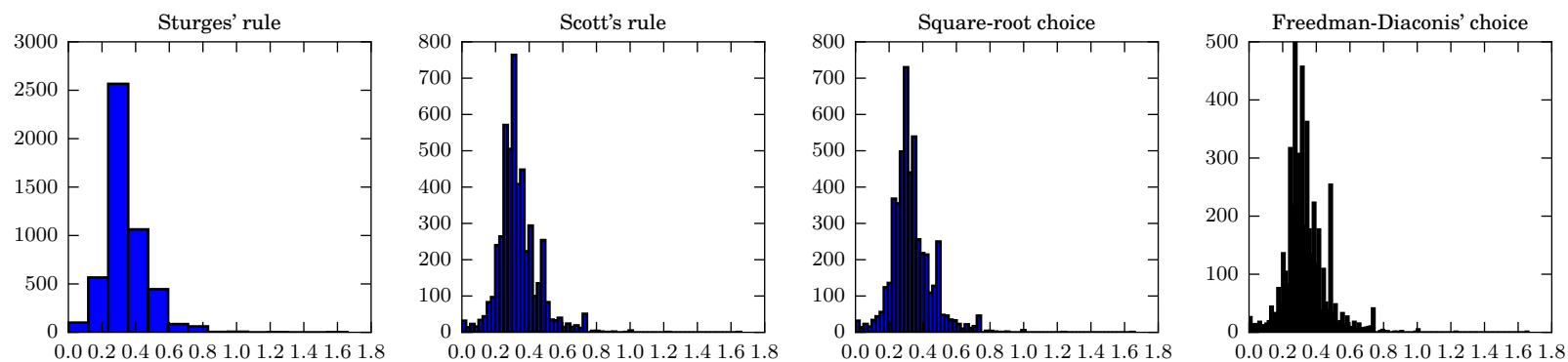
### 0.1.3 quality



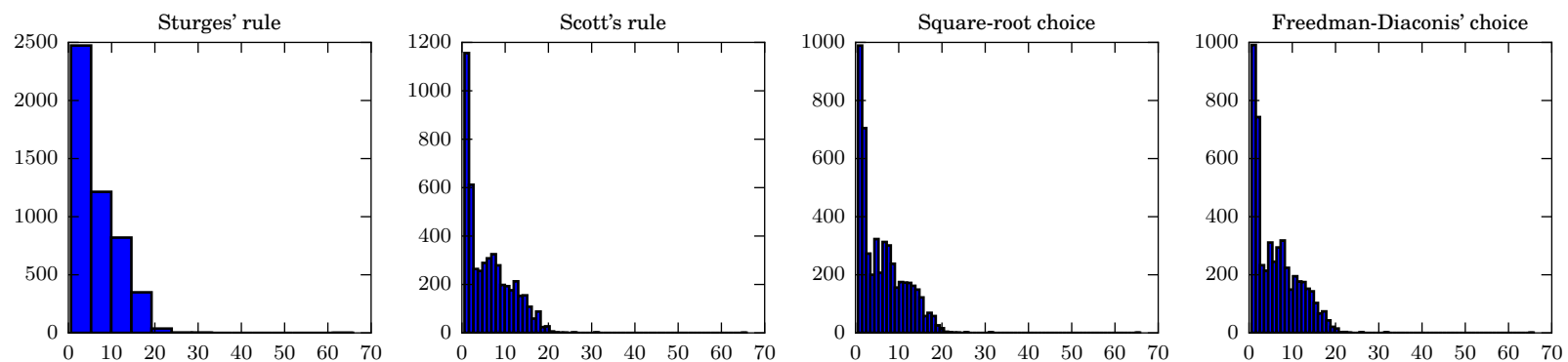
### 0.1.4 total sulfur dioxide



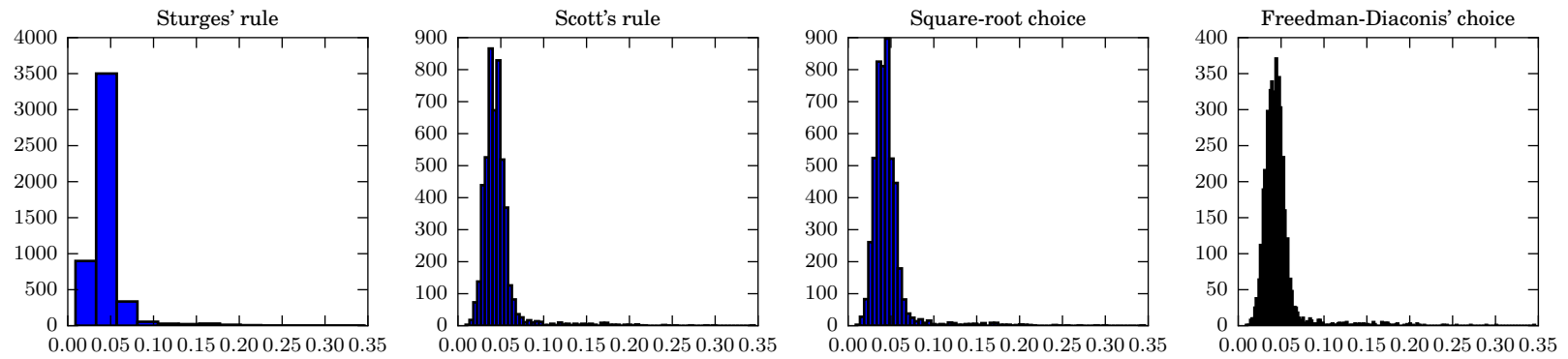
### 0.1.5 citric acid



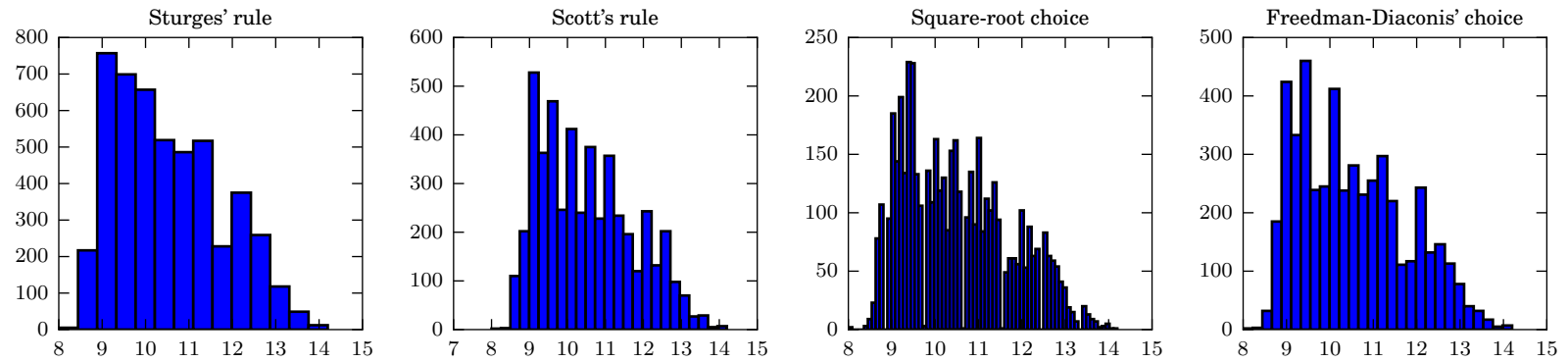
### 0.1.6 residual sugar



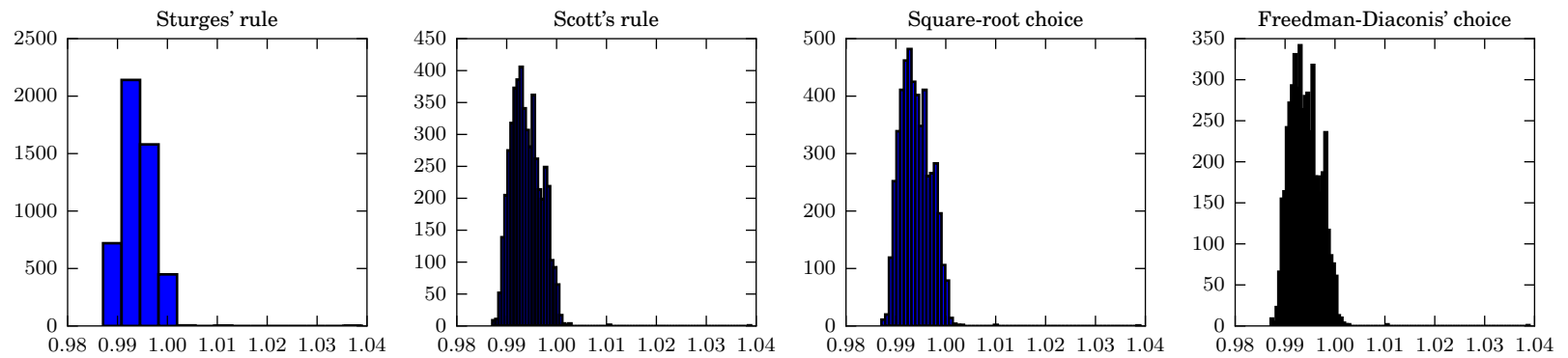
### 0.1.7 chlorides



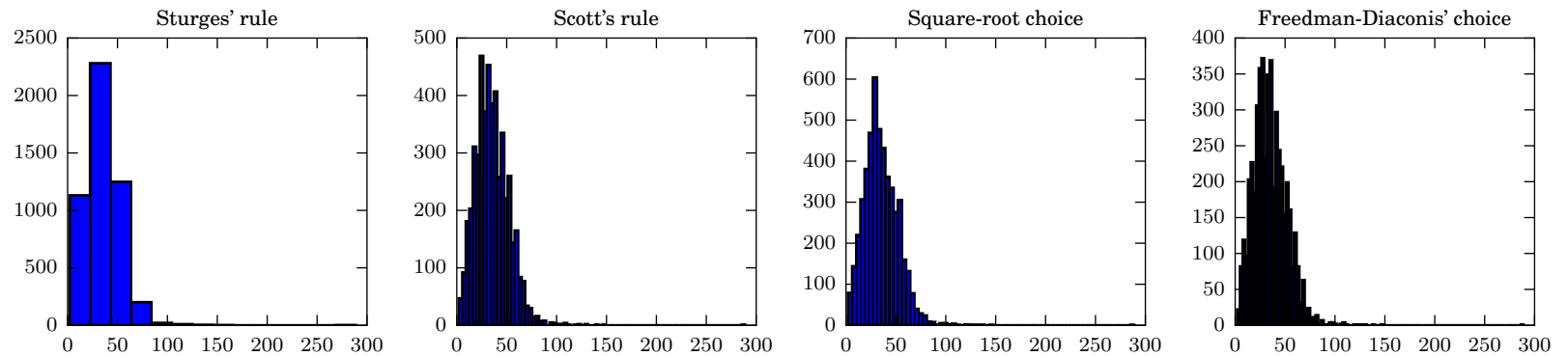
### 0.1.8 alcohol



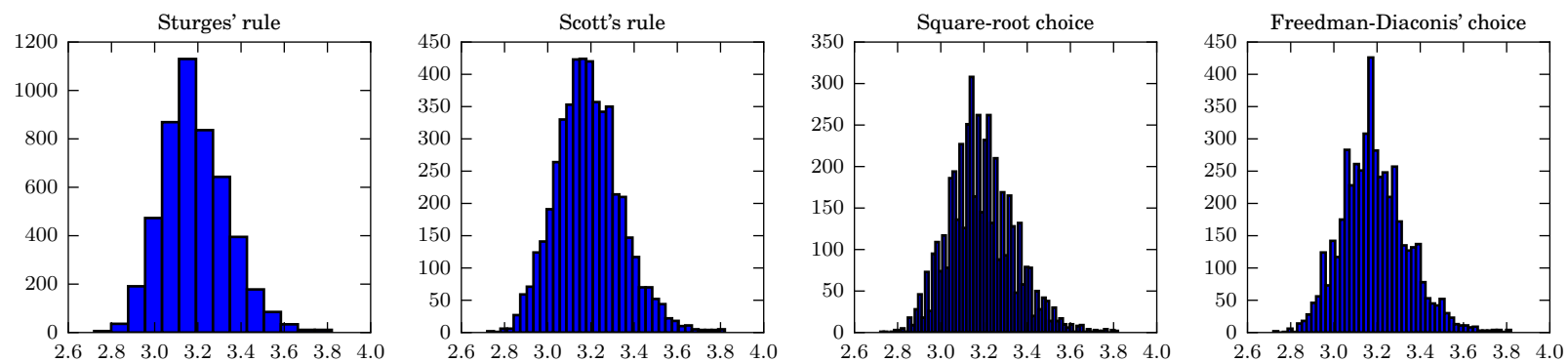
### 0.1.9 density



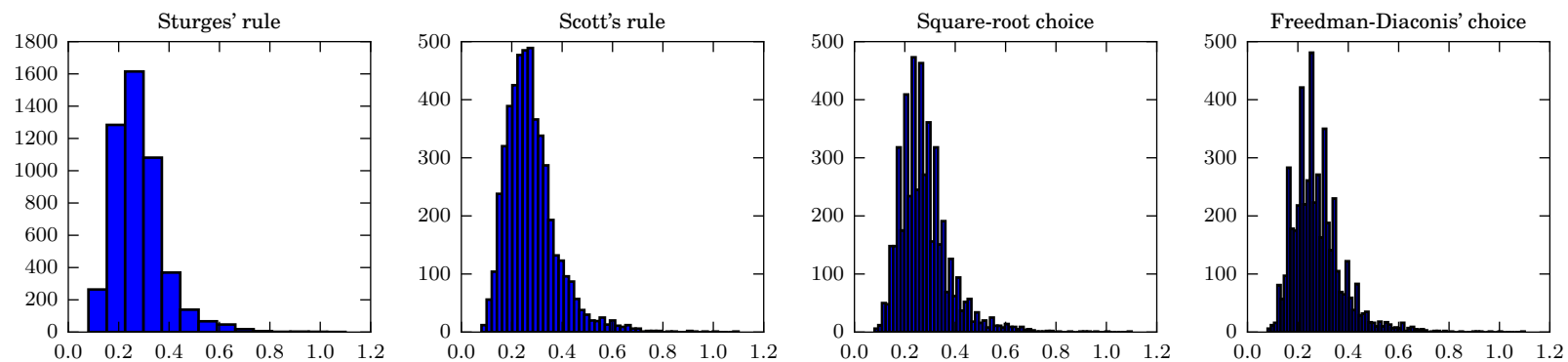
### 0.1.10 free sulfur dioxide



### 0.1.11 pH



### 0.1.12 volatile acidity



## 0.2 Correlation coefficients using different functions

### 0.2.1 Correlation coefficients using Pearson's correlation coefficient

	fixed acidity	sulphates	quality	total sulfur dioxide	citric acid	residual sugar	chlorides	alcohol	density	free sulfur dioxide	pH	volatile acidity
fixed acidity	<b>1.0000</b>	-0.0171	-0.1137	0.0911	0.2892	0.0890	0.0231	-0.1209	0.2653	-0.0494	-0.4259	-0.0227
sulphates	-0.0171	<b>1.0000</b>	0.0537	0.1346	0.0623	-0.0267	0.0168	-0.0174	0.0745	0.0592	0.1560	-0.0357
quality	-0.1137	0.0537	<b>1.0000</b>	-0.1747	-0.0092	-0.0976	-0.2099	0.4356	-0.3071	0.0082	0.0994	-0.1947
total sulfur dioxide	0.0911	0.1346	-0.1747	<b>1.0000</b>	0.1211	0.4014	0.1989	-0.4489	<b>0.5299</b>	<b>0.6155</b>	0.0023	0.0893
citric acid	0.2892	0.0623	-0.0092	0.1211	<b>1.0000</b>	0.0942	0.1144	-0.0757	0.1495	0.0941	-0.1637	-0.1495
residual sugar	0.0890	-0.0267	-0.0976	0.4014	0.0942	<b>1.0000</b>	0.0887	-0.4506	<b>0.8390</b>	0.2991	-0.1941	0.0643
chlorides	0.0231	0.0168	-0.2099	0.1989	0.1144	0.0887	<b>1.0000</b>	-0.3602	0.2572	0.1014	-0.0904	0.0705
alcohol	-0.1209	-0.0174	0.4356	-0.4489	-0.0757	-0.4506	-0.3602	<b>1.0000</b>	<b>-0.7801</b>	-0.2501	0.1214	0.0677
density	0.2653	0.0745	-0.3071	<b>0.5299</b>	0.1495	<b>0.8390</b>	0.2572	<b>-0.7801</b>	<b>1.0000</b>	0.2942	-0.0936	0.0271
free sulfur dioxide	-0.0494	0.0592	0.0082	<b>0.6155</b>	0.0941	0.2991	0.1014	-0.2501	0.2942	<b>1.0000</b>	-0.0006	-0.0970
pH	-0.4259	0.1560	0.0994	0.0023	-0.1637	-0.1941	-0.0904	0.1214	-0.0936	-0.0006	<b>1.0000</b>	-0.0319
volatile acidity	-0.0227	-0.0357	-0.1947	0.0893	-0.1495	0.0643	0.0705	0.0677	0.0271	-0.0970	-0.0319	<b>1.0000</b>

### 0.2.2 Correlation coefficients using Spearman's rho

	fixed acidity	sulphates	quality	total sulfur dioxide	citric acid	residual sugar	chlorides	alcohol	density	free sulfur dioxide	pH	volatile acidity
fixed acidity	<b>1.0000</b>	-0.0132	-0.0845	0.1126	0.2979	0.1067	0.0947	-0.1068	0.2700	-0.0245	-0.4183	-0.0429
sulphates	-0.0132	<b>1.0000</b>	0.0333	0.1578	0.0798	-0.0038	0.0939	-0.0449	0.0951	0.0523	0.1402	-0.0169
quality	-0.0845	0.0333	<b>1.0000</b>	-0.1967	0.0183	-0.0821	-0.3145	0.4404	-0.3484	0.0237	0.1094	-0.1966
total sulfur dioxide	0.1126	0.1578	-0.1967	<b>1.0000</b>	0.0932	0.4313	0.3752	-0.4766	<b>0.5638</b>	<b>0.6186</b>	-0.0118	0.1176
citric acid	0.2979	0.0798	0.0183	0.0932	<b>1.0000</b>	0.0246	0.0327	-0.0292	0.0914	0.0883	-0.1462	-0.1504
residual sugar	0.1067	-0.0038	-0.0821	0.4313	0.0246	<b>1.0000</b>	0.2278	-0.4453	<b>0.7804</b>	0.3461	-0.1800	0.1086
chlorides	0.0947	0.0939	-0.3145	0.3752	0.0327	0.2278	<b>1.0000</b>	<b>-0.5708</b>	<b>0.5083</b>	0.1670	-0.0540	-0.0049
alcohol	-0.1068	-0.0449	0.4404	-0.4766	-0.0292	-0.4453	<b>-0.5708</b>	<b>1.0000</b>	<b>-0.8219</b>	-0.2726	0.1489	0.0340
density	0.2700	0.0951	-0.3484	<b>0.5638</b>	0.0914	<b>0.7804</b>	<b>0.5083</b>	<b>-0.8219</b>	<b>1.0000</b>	0.3278	-0.1101	0.0101
free sulfur dioxide	-0.0245	0.0523	0.0237	<b>0.6186</b>	0.0883	0.3461	0.1670	-0.2726	0.3278	<b>1.0000</b>	-0.0063	-0.0812
pH	-0.4183	0.1402	0.1094	-0.0118	-0.1462	-0.1800	-0.0540	0.1489	-0.1101	-0.0063	<b>1.0000</b>	-0.0452
volatile acidity	-0.0429	-0.0169	-0.1966	0.1176	-0.1504	0.1086	-0.0049	0.0340	0.0101	-0.0812	-0.0452	<b>1.0000</b>

### 0.2.3 Correlation coefficients using Kendall's tau

	fixed acidity	sulphates	quality	total sulfur dioxide	citric acid	residual sugar	chlorides	alcohol	density	free sulfur dioxide	pH	volatile acidity
fixed acidity	<b>1.0000</b>	-0.0087	-0.0655	0.0773	0.2086	0.0749	0.0654	-0.0732	0.1855	-0.0169	-0.2948	-0.0296
sulphates	-0.0087	<b>1.0000</b>	0.0264	0.1087	0.0545	-0.0025	0.0626	-0.0264	0.0642	0.0356	0.0958	-0.0116
quality	-0.0655	0.0264	<b>1.0000</b>	-0.1512	0.0146	-0.0631	-0.2449	0.3467	-0.2666	0.0172	0.0844	-0.1548
total sulfur dioxide	0.0773	0.1087	-0.1512	<b>1.0000</b>	0.0622	0.2933	0.2571	-0.3258	0.3884	0.4447	-0.0084	0.0813
citric acid	0.2086	0.0545	0.0146	0.0622	<b>1.0000</b>	0.0153	0.0223	-0.0200	0.0615	0.0608	-0.1013	-0.1040
residual sugar	0.0749	-0.0025	-0.0631	0.2933	0.0153	<b>1.0000</b>	0.1553	-0.3056	<b>0.5890</b>	0.2367	-0.1256	0.0728
chlorides	0.0654	0.0626	-0.2449	0.2571	0.0223	0.1553	<b>1.0000</b>	-0.4040	0.3491	0.1139	-0.0379	-0.0035
alcohol	-0.0732	-0.0264	0.3467	-0.3258	-0.0200	-0.3056	-0.4040	<b>1.0000</b>	<b>-0.6351</b>	-0.1825	0.1026	0.0235
density	0.1855	0.0642	-0.2666	0.3884	0.0615	<b>0.5890</b>	0.3491	<b>-0.6351</b>	<b>1.0000</b>	0.2173	-0.0756	0.0066
free sulfur dioxide	-0.0169	0.0356	0.0172	0.4447	0.0608	0.2367	0.1139	-0.1825	0.2173	<b>1.0000</b>	-0.0052	-0.0548
pH	-0.2948	0.0958	0.0844	-0.0084	-0.1013	-0.1256	-0.0379	0.1026	-0.0756	-0.0052	<b>1.0000</b>	-0.0304
volatile acidity	-0.0296	-0.0116	-0.1548	0.0813	-0.1040	0.0728	-0.0035	0.0235	0.0066	-0.0548	-0.0304	<b>1.0000</b>