Appendices

1 Summary plots

1.1 Within-project

1.1.1 +Size/-SNA: These are summary plots of all instances in within-project with (+Size/-SNA) metrics sets.

Fig. 1: ant1.4

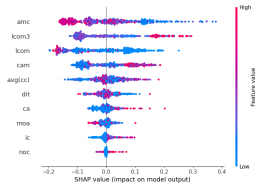

Fig. 2: ant1.5

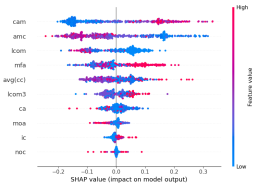

Fig. 3: ant1.6

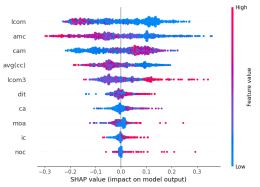

Fig. 4: ant1.7

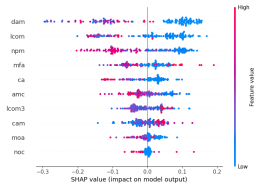

Fig. 5: log4j1.0.4

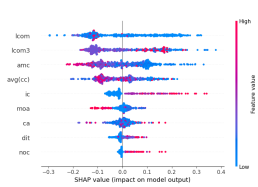

Fig. 6: ivy2.0

Fig. 7: jEdit3.2.1

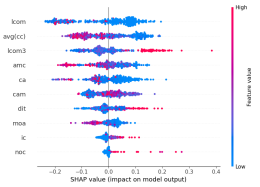

Fig. 8: jEdit4.0

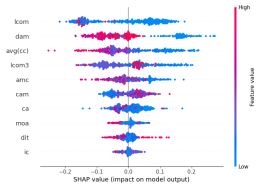

Fig. 9: jEdit4.1

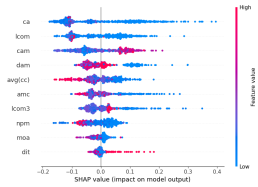

Fig. 10: jEdit4.2

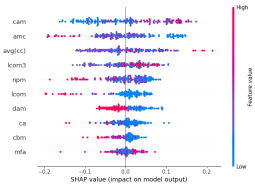

Fig. 11: lucene2.0

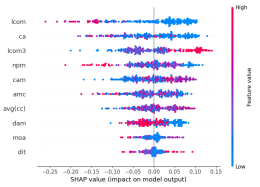

Fig. 12: lucene2.2

Fig. 13: lucene2.4

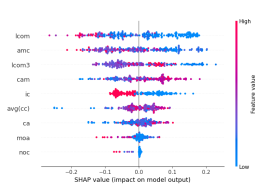

Fig. 14: poi1.5

Fig. 15: poi2.0

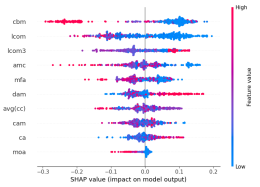

Fig. 16: poi2.5

Fig. 17: poi3.0

Fig. 18: synase1.0

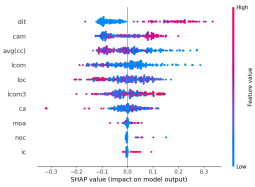

Fig. 19: synase1.1

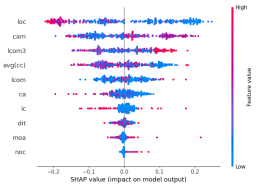

Fig. 20: synase1.2

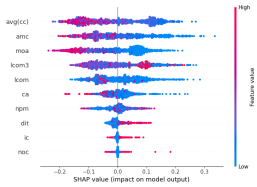

Fig. 21: Tomcat6.0.39

Fig. 22: velocity1.4

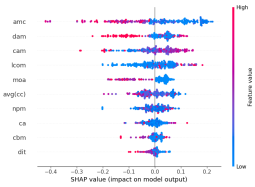

Fig. 23: velocity1.5

Fig. 24: velocity1.6.1

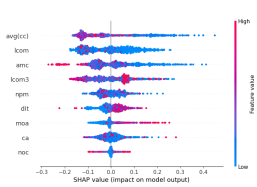

Fig. 25: xalan2.4.0

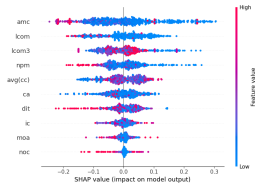

Fig. 26: xalan2.5.0

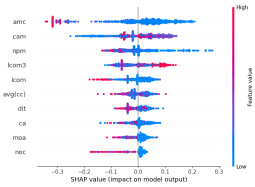

Fig. 27: xalan2.6.0

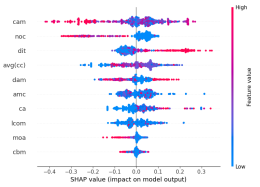

Fig. 28: xerces1.2.0

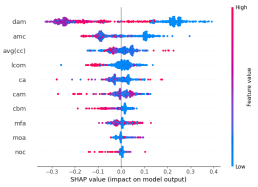

Fig. 29: xerces1.3.0

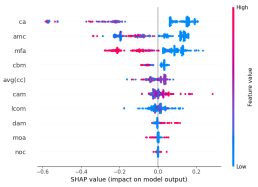

Fig. 30: xerces1.4.4

1.1.2 -Size/+SNA: These are summary plots of all instances in within-project with (-Size/+SNA) metrics sets.

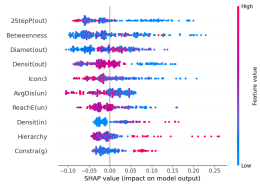

Fig. 31: ant1.4

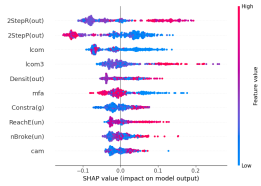

Fig. 32: ant1.5

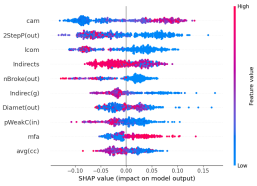

Fig. 33: ant1.6

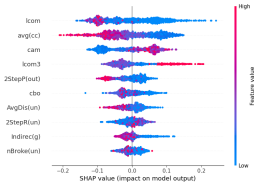

Fig. 34: ant1.7

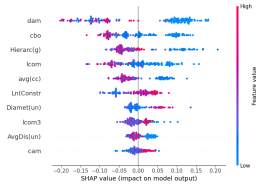

Fig. 35: log4j1.0.4

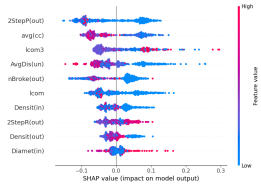

Fig. 36: ivy2.0

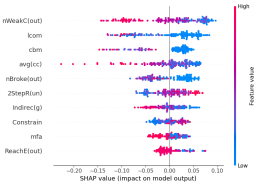

Fig. 37: jEdit3.2.1

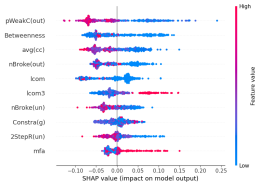

Fig. 38: jEdit4.0

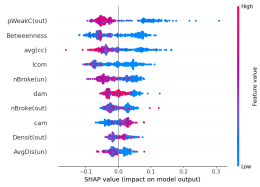

Fig. 39: jEdit4.1

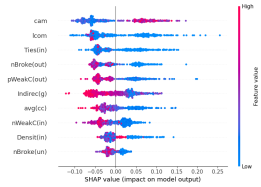

Fig. 40: jEdit4.2

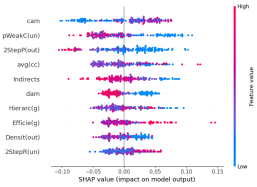

Fig. 41: lucene2.0

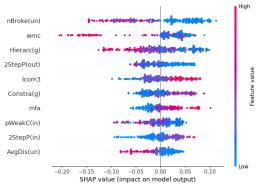

Fig. 42: lucene2.2

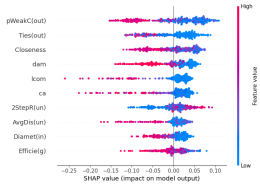

Fig. 43: lucene2.4

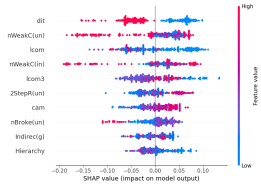

Fig. 44: poi1.5

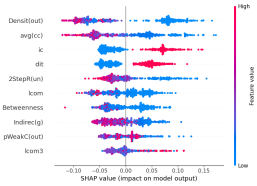

Fig. 45: poi2.0

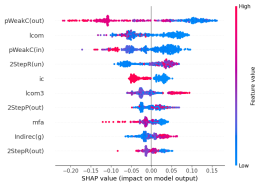

Fig. 46: poi2.5

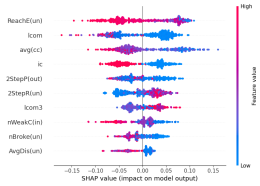

Fig. 47: poi3.0

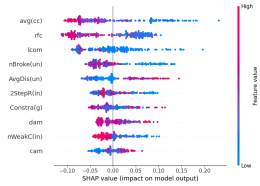

Fig. 48: synase1.0

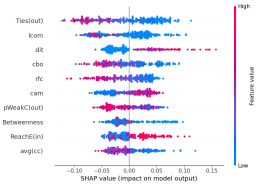

Fig. 49: synase1.1

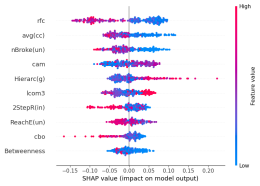

Fig. 50: synase1.2

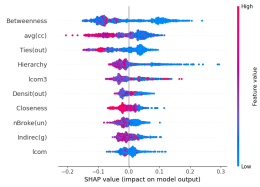

Fig. 51: Tomcat6.0.39

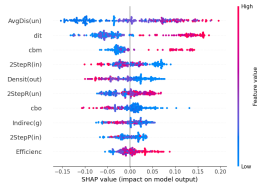

Fig. 52: velocity1.4

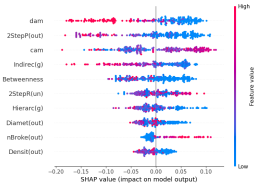

Fig. 53: velocity1.5

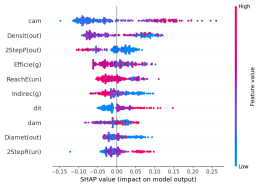

Fig. 54: velocity1.6.1

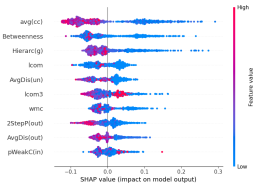

Fig. 55: xalan2.4.0

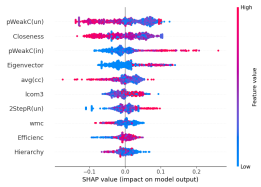

Fig. 56: xalan2.5.0

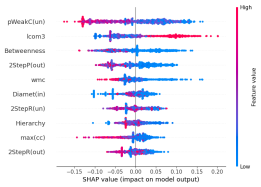

Fig. 57: xalan2.6.0

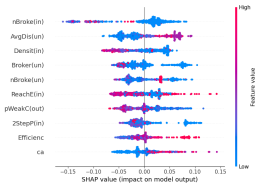

Fig. 58: xerces1.2.0

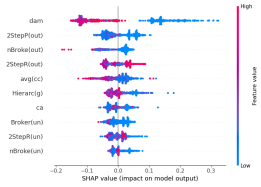

Fig. 59: xerces1.3.0

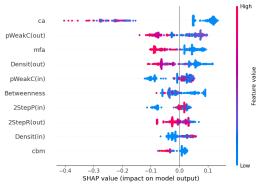

Fig. 60: xerces1.4.4

1.2 Cross-project

1.2.1 +Size/-SNA: These are summary plots of all instances in cross-project with (+Size/-SNA) metrics sets.

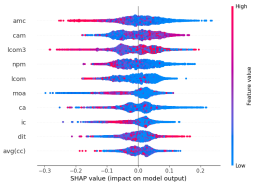

Fig. 61: ant1.4

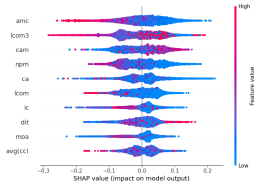

Fig. 62: ant1.5

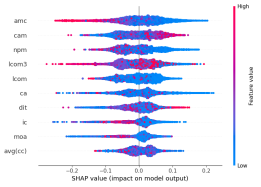

Fig. 63: ant1.6

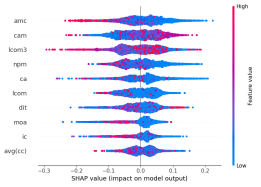

Fig. 64: ant1.7

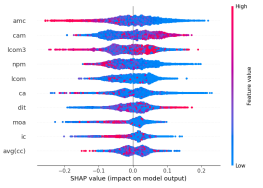

Fig. 65: log4j1.0.4

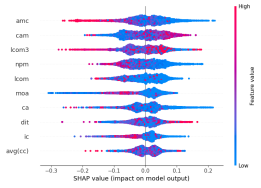

Fig. 66: ivy2.0

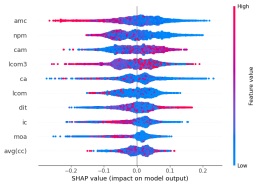

Fig. 67: jEdit3.2.1

Fig. 68: jEdit4.0

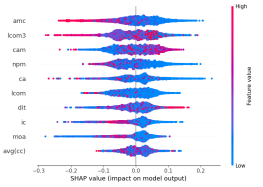

Fig. 69: jEdit4.1

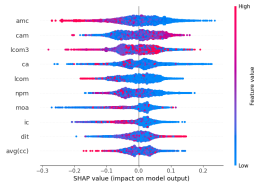

Fig. 70: jEdit4.2

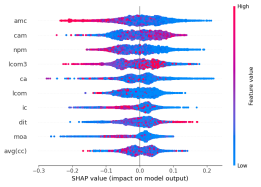

Fig. 71: lucene2.0

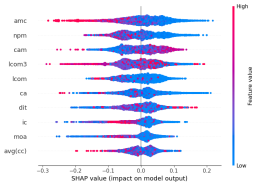

Fig. 72: lucene2.2

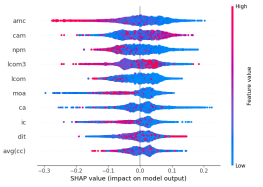

Fig. 73: lucene2.4

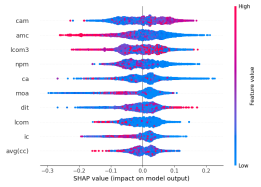

Fig. 74: poi1.5

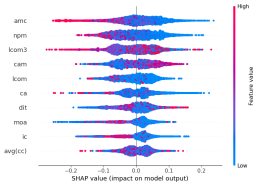

Fig. 75: poi2.0

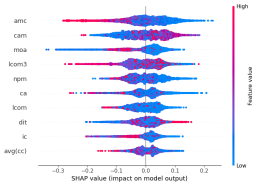

Fig. 76: poi2.5

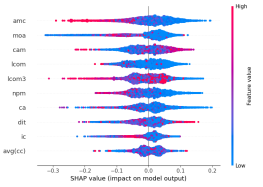

Fig. 77: poi3.0

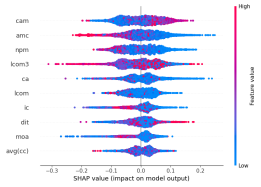

Fig. 78: synase1.0

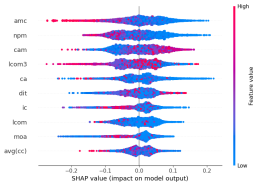

Fig. 79: synase1.1

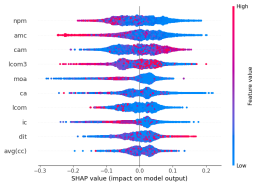

Fig. 80: synase1.2

Fig. 81: Tomcat6.0.39

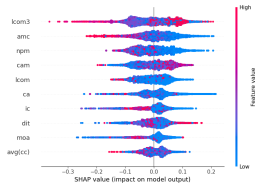

Fig. 82: velocity1.4

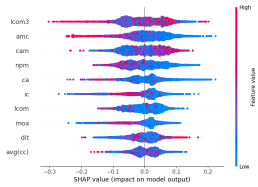

Fig. 83: velocity1.5

Fig. 84: velocity1.6.1

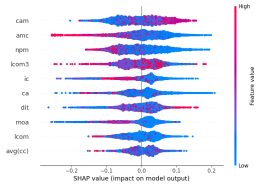

Fig. 85: xalan2.4.0

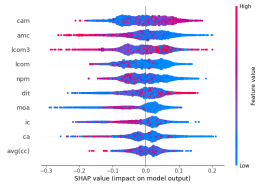

Fig. 86: xalan2.5.0

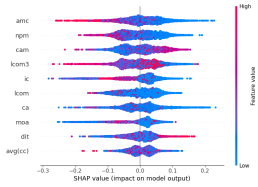

Fig. 87: xalan2.6.0

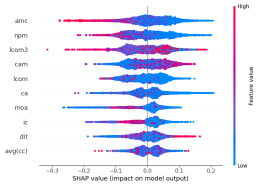

Fig. 88: xerces1.2.0

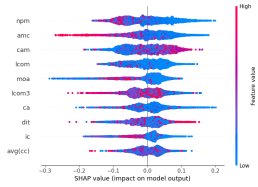

Fig. 89: xerces1.3.0

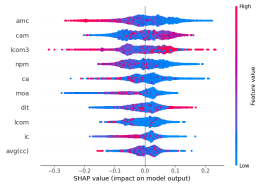

Fig. 90: xerces1.4.4

1.2.2 -Size/+SNA: These are summary plots of all instances in cross-project with (-Size/+SNA) metrics sets.

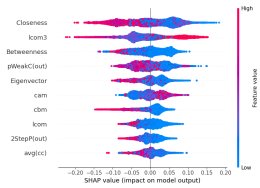

Fig. 91: ant1.4

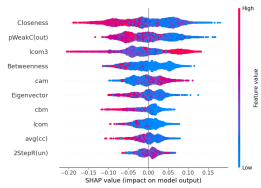

Fig. 92: ant1.5

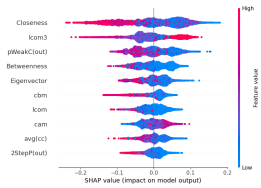

Fig. 93: ant1.6

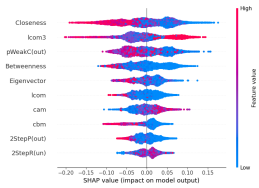

Fig. 94: ant1.7

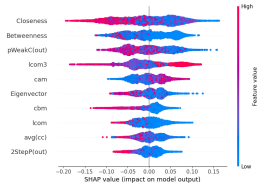

Fig. 95: log4j1.0.4

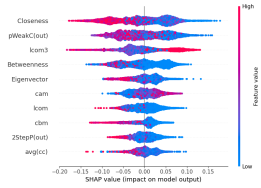

Fig. 96: ivy2.0

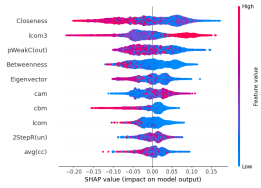

Fig. 97: jEdit3.2.1

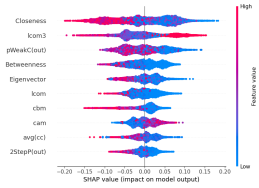

Fig. 98: jEdit4.0

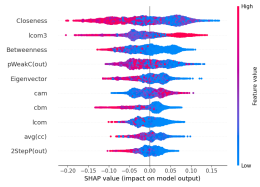

Fig. 99: jEdit4.1

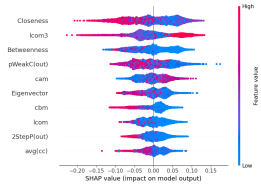

Fig. 100: jEdit4.2

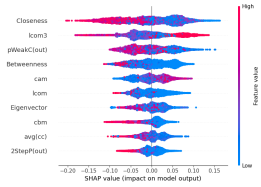

Fig. 101: lucene2.0

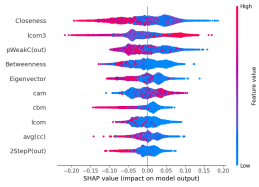

Fig. 102: lucene2.2

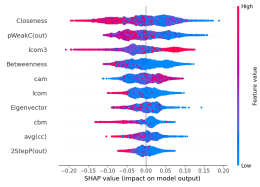

Fig. 103: lucene2.4

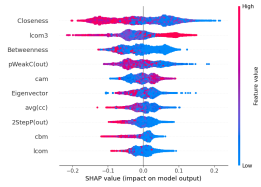

Fig. 104: poi1.5

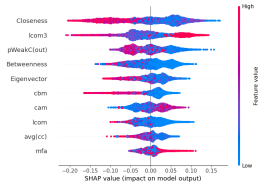

Fig. 105: poi2.0

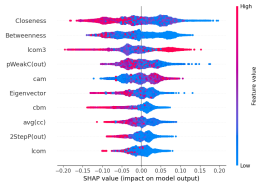

Fig. 106: poi2.5

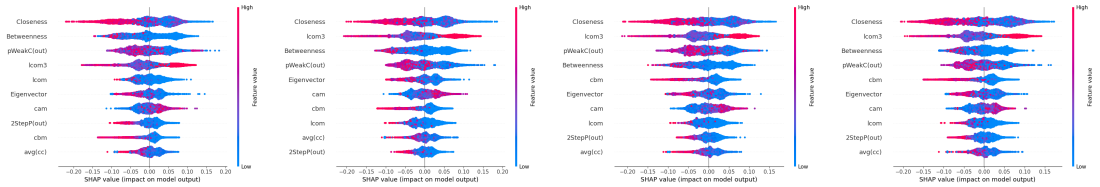

Fig. 107: poi3.0 **Fig. 108**: synase1.0 **Fig. 109**: synase1.1 **Fig. 110**: synase1.2

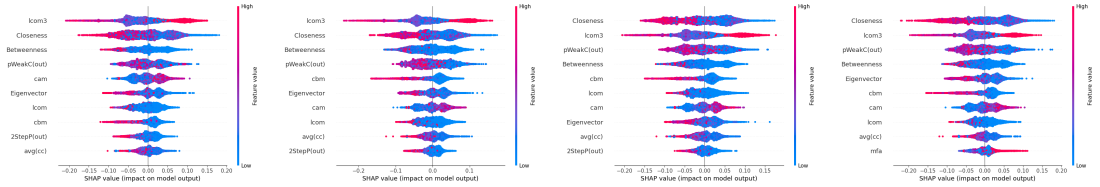

Fig. 111: Tomcat6.0.39 **Fig. 112**: velocity1.4 **Fig. 113**: velocity1.5 **Fig. 114**: velocity1.6.1

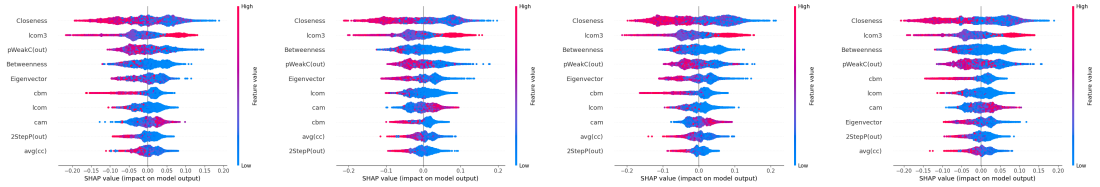

Fig. 115: xalan2.4.0 **Fig. 116**: xalan2.5.0 **Fig. 117**: xalan2.6.0 **Fig. 118**: xerces1.2.0

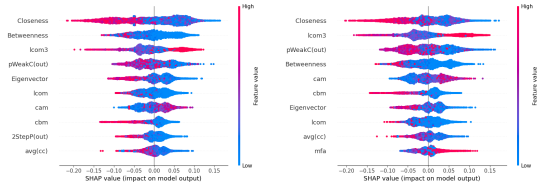

Fig. 119: xerces1.3.0 **Fig. 120**: xerces1.4.4

2 Dependence plots

2.1 Within-project

These are dependence plots of combination of Betweenness and MOA metrics in within-project validation.

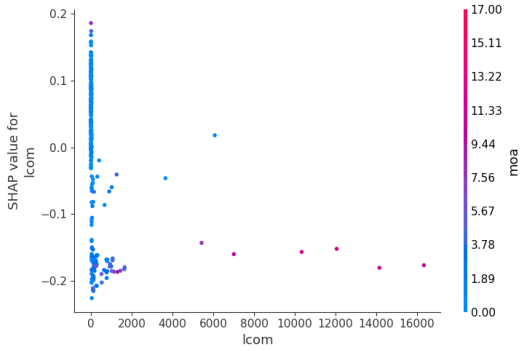

Fig. 121: MOA/LCOM

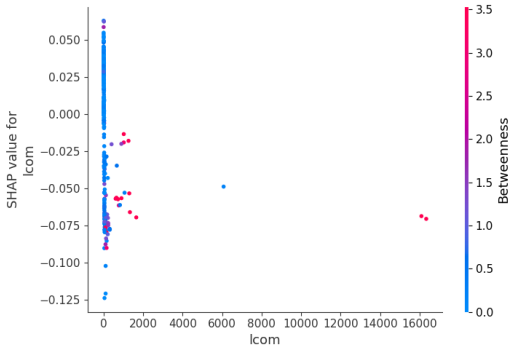

Fig. 122: Betweenness/LCOM

2.2 Cross-project

These are dependence plots of combination of Betweenness and MOA metrics in cross-project validation.

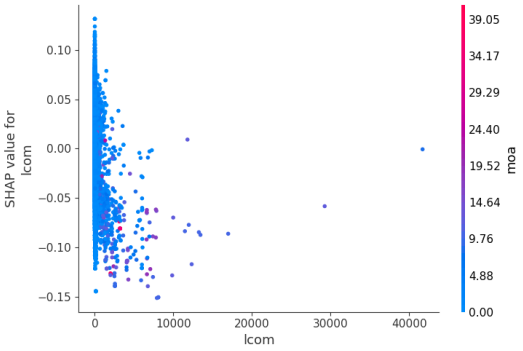

Fig. 123: MOA/LCOM

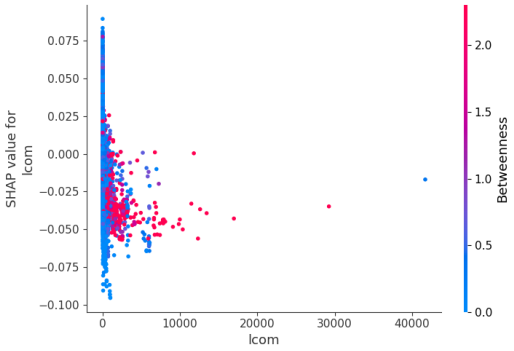

Fig. 124: Betweenness/LCOM