Supplementary material:

**List of the 287 features**

|  |
| --- |
| tminBS |
| tminBL |
| tminMS |
| tminML |
| tminAS |
| tminAL |
| tminMean4 |
| minBS |
| minBL |
| minMS |
| minML |
| minAS |
| minAL |
| minMean4 |
| difftavcminBS |
| difftavcminBL |
| difftavcminMS |
| difftavcminML |
| difftavcminAS |
| difftavcminAL |
| difftavcminMean4 |
| diffSavcminBS |
| diffSavcminBL |
| diffSavcminMS |
| diffSavcminML |
| diffSavcminAS |
| diffSavcminAL |
| diffSavcminMean4 |
| IavcBS |
| IavcBL |
| IavcMS |
| IavcML |
| IavcAS |
| IavcAL |
| IavcMean4 |
| IminBS |
| IminBL |
| IminMS |
| IminML |
| IminAS |
| IminAL |
| IminMean4 |
| eBS |
| eBL |
| eMS |
| eML |
| eAS |
| eAL |
| eMean4 |
| IavcS |
| IavcL |
| IavcD4 |
| IminS |
| IminL |
| IminD4 |
| eS |
| eL |
| eD4 |
| dtwBS |
| dtwBL |
| dtwMS |
| dtwML |
| dtwAS |
| dtwAL |
| tminBAs |
| tminBP |
| tminMAs |
| tminMP |
| tminAAs |
| tminAP |
| tminMean3 |
| minBAs |
| minBP |
| minMAs |
| minMP |
| minAAs |
| minAP |
| minMean3 |
| difftavcminBAs |
| difftavcminBP |
| difftavcminMAs |
| difftavcminMP |
| difftavcminAAs |
| difftavcminAP |
| difftavcminMean3 |
| diffSavcminBAs |
| diffSavcminBP |
| diffSavcminMAs |
| diffSavcminMP |
| diffSavcminAAs |
| diffSavcminAP |
| diffSavcminMean3 |
| IavcBAs |
| IavcBP |
| IavcMAs |
| IavcMP |
| IavcAAs |
| IavcAP |
| IavcMean3 |
| IminBAs |
| IminBP |
| IminMAs |
| IminMP |
| IminAAs |
| IminAP |
| IminMean3 |
| eBAs |
| eBP |
| eMAs |
| eMP |
| eAAs |
| eAP |
| eMean3 |
| IavcAs |
| IavcP |
| IavcD3 |
| IminAs |
| IminP |
| IminD3 |
| eAs |
| eP |
| eD3 |
| dtwBAs |
| dtwBP |
| dtwMAs |
| dtwMP |
| dtwAAs |
| dtwAP |
| tminBI |
| tminBA |
| tminMI |
| tminMA |
| tminAI |
| tminAA |
| tminMean2 |
| minBI |
| minBA |
| minMI |
| minMA |
| minAI |
| minAA |
| minMean2 |
| difftavcminBI |
| difftavcminBA |
| difftavcminMI |
| difftavcminMA |
| difftavcminAI |
| difftavcminAA |
| difftavcminMean2 |
| diffSavcminBI |
| diffSavcminBA |
| diffSavcminMI |
| diffSavcminMA |
| diffSavcminAI |
| diffSavcminAA |
| diffSavcminMean2 |
| IavcBI |
| IavcBA |
| IavcMI |
| IavcMA |
| IavcAI |
| IavcAA |
| IavcMean2 |
| IminBI |
| IminBA |
| IminMI |
| IminMA |
| IminAI |
| IminAA |
| IminMean2 |
| eBI |
| eBA |
| eMI |
| eMA |
| eAI |
| diffIavcminAA |
| eMean2 |
| IavcI |
| IavcA |
| IavcD2 |
| IminI |
| IminA |
| IminD2 |
| eI |
| eA |
| eD2 |
| dtwBI |
| dtwBA |
| dtwMI |
| dtwMA |
| dtwAI |
| dtwAA |
| stdmin |
| stdtmin |
| stdImin |
| diffImin |
| difIminSIminL |
| difIminAsIminP |
| difIminIIminA |
| BSstdaround |
| BAsstdaround |
| BIstdaround |
| BLstdaround |
| BPstdaround |
| BAstdaround |
| MSstdaround |
| MAsstdaround |
| MIstdaround |
| MLstdaround |
| MPstdaround |
| MAstdaround |
| AMSstdaround |
| AAsstdaround |
| AIstdaround |
| ALstdaround |
| APstdaround |
| AAstdaround |
| meanstdaroud |
| stdstdaroud |
| apexbasemin |
| apexbaseImin |
| age |
| Female gender |
| size\_cm |
| weight\_kg |
| BMI |
| BS\_m2 |
| HCM\_mutation |
| HCM\_mutation\_gene |
| HCM\_family\_history |
| SCD family history |
| unexplained syncope 1 |
| Myomectomy/PTSMA |
| CAD/IDM/ATC |
| NYHA |
| Angor |
| SBP\_mmHg |
| DBP\_mmHg |
| HR\_bpm |
| Arterial hypertension |
| Bêta-blocker |
| Calcium blocker |
| RAAS inhibitor |
| History of SVT |
| Unexplained syncope |
| NSVT |
| Localisation\_LVH\_ant |
| Localisation\_LVH sep |
| Localisation\_LVH\_se2 |
| LVH septal localization |
| Apical aneurysm |
| MWT mm |
| MWT ≥ 30mm |
| IVSd\_mm |
| LVESD\_mm |
| PWd\_mm |
| LVESD\_mm |
| Mass\_ind\_ASE\_g/m2 |
| E |
| EDT ms |
| A |
| E/A ratio |
| Mean Ea |
| Mean E/e' ratio |
| Peak LVOT rest |
| Peak LVOT\_≥ 30 mmHg |
| MR\_mild |
| MR\_moderate |
| MR\_severe |
| SAM y\_n |
| LA diameter\_mm |
| LAV ml/m2 |
| LVESV ml |
| LVEDV ml |
| LVEF % |
| LVEF < 50% |
| GLS\_VG |
| AVC ms |
| Peak work |
| Peak work (predicted%) |
| HR(predicted%) |
| 1st degree AV block |
| Left axis deviation |
| Wide QRS |
| Q-wave |
| T wave inversion |
| LGE\_y\_n |

*AVC, aortic valve closure; BMI Body Mass Index; DBP diastolic blood pressure; EDT, E wave deceleration time; GLS, global longitudinal strain; HR heart rate; IVS, interventricular septum; LA, left atrium; LAV, Left atrium volume indexed; LV, left ventricle; LVEDD, LV end-diastolic diameter; LVESD, LV end-systolic diameter; LVEDV, LV end-diastolic volume ; LVEF, left ventricular ejection fraction; LGE, late gadolinium enhancement; LVOT, left ventricle outflow tract; LVH, Left ventricular hypertrophy; MR, mitral regurgitation; MWT, maximal wall thickness; NSVT, non-sustained ventricular tachycardia; PS, posterior wall; SBP systolic blood pressure; SAM, systolic anterior motion;SCD Sudden cardiac death; SRT septal reduction therapy.*