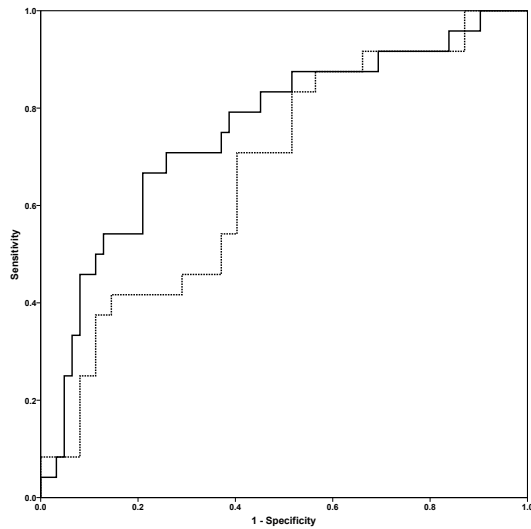


## Supplemental Material.

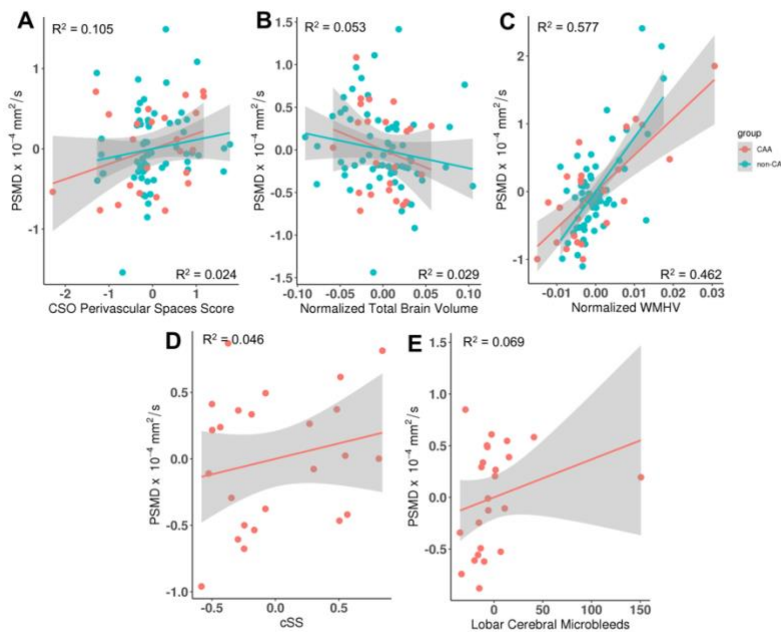
### Figure 1. Receiver operating characteristic curve analyses investigating the classification performance of PSMD and nWMHV

ROC curve illustrating the ability of peak width of skeletonized mean diffusivity (PSMD; solid line) and normalized white matter hyperintensities volume (nWMHV; dotted line) in differentiating between cerebral amyloid angiopathy (CAA) subjects with mild cognitive impairment (CAA-MCI) and subjects with mild cognitive impairment not attributable to CAA (non-CAA-MCI). PSMD (AUC=0.755,  $p<0.001$ ) and nWMHV (AUC=0.668,  $p=0.016$ ) significantly distinguished the MCI groups.



**Figure 2. Association between imaging markers and PSMD in CAA-MCI and non-CAA-MCI subjects.**

Partial regression plots illustrate the association between PSMD and multiple neuroimaging markers, adjusted for age at MRI. The plots illustrate a multiple linear regression model in which PSMD is the dependent variable and (A) centrum semiovale perivascular space score (CSO PVS), (B) normalized total brain volume (nTBV), (C) normalized white matter hyperintensities volume (nWMHV), (D) presence of cortical superficial siderosis (cSS), and (E) lobar cerebral microbleed count (CMBs) are included together as independent variables, adjusted for age at MRI. The values from the CAA-MCI group are displayed in red and those from non-CAA-MCI are displayed in blue. The  $R^2$  provided in the left upper corners refer to the CAA-MCI group, whereas the  $R^2$  provided in the bottom right corners refer to the non-CAA-MCI group.



**Figure 3. Association between PSMD and performance in multiple cognitive domains in CAA-MCI subjects and non-CAA-MCI.**

Partial regression plots illustrate the association between PSMD and performance in multiple cognitive domains. The plots illustrate linear regression models in which each cognitive function ([A] MMSE, [B] Memory, [C] Processing Speed/Attention, [D] Language, and [E] Executive) is entered as dependent variable and all neuroimaging markers (lobar cerebral microbleed count, centrum semiovale perivascular space score, presence of cortical superficial siderosis, normalized total hyperintensities volume (nWMHV), normalized total brain volume (nTBV) and PSMD) are included together as independent variables, adjusting for time delay between the neuropsychological evaluation and the MRI. The values from the CAA-MCI group are displayed in red and those from non-CAA-MCI are displayed in blue. The  $R^2$  provided in the left upper corners refer to the CAA-MCI group, whereas the  $R^2$  provided in the bottom right corners refer to the non-CAA-MCI group.

