

Distributions per spectrometer (phase 1, 2 and 3)

Outliers $4 \times$ IQR from median removed

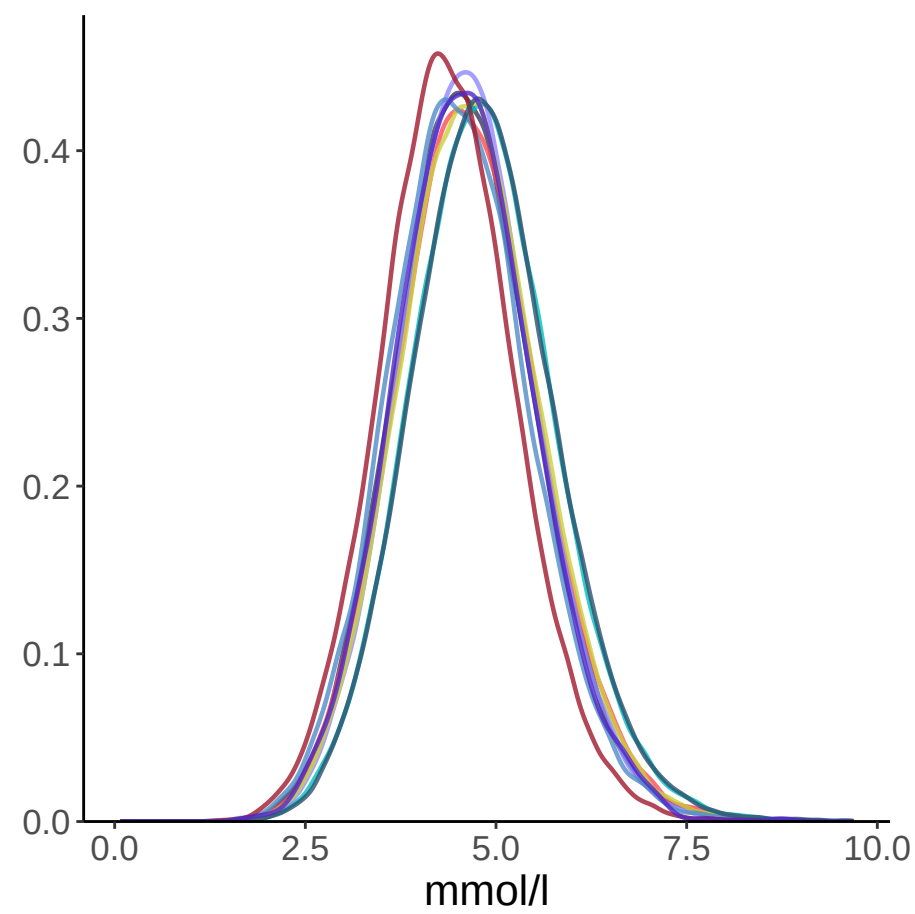
Nightingale Health Plc.

Cholesterol

Total_C

Spectrometer

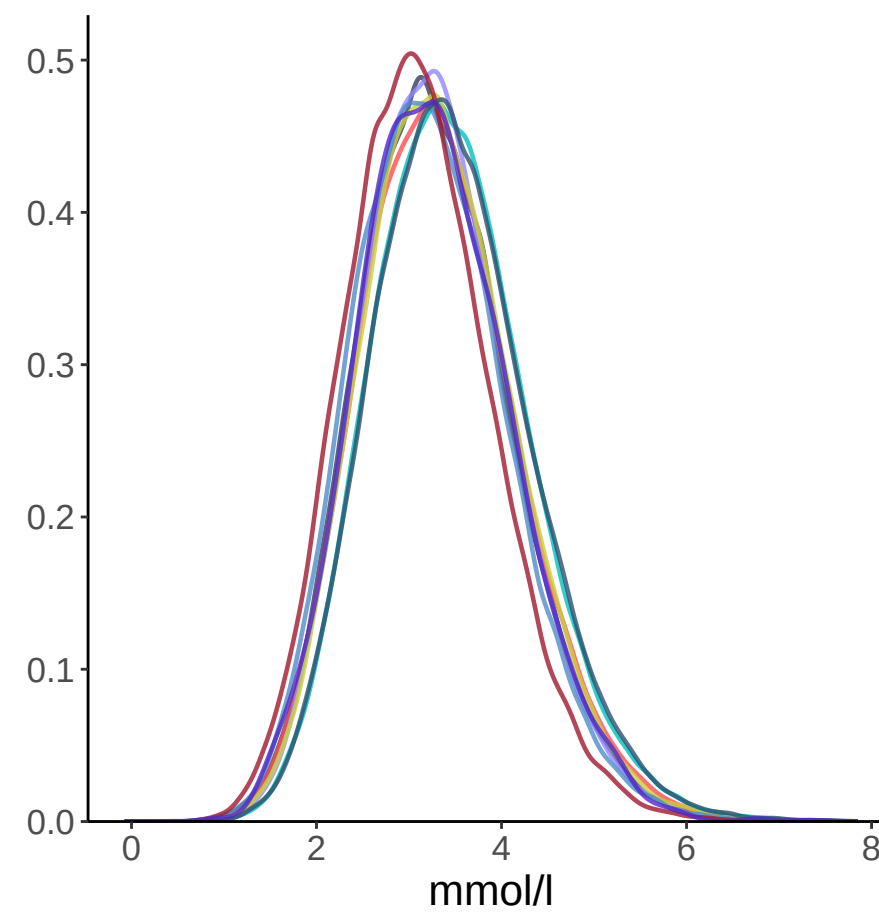
1 2 3 4 5
6 7 8 9



non_HDL_C

Spectrometer

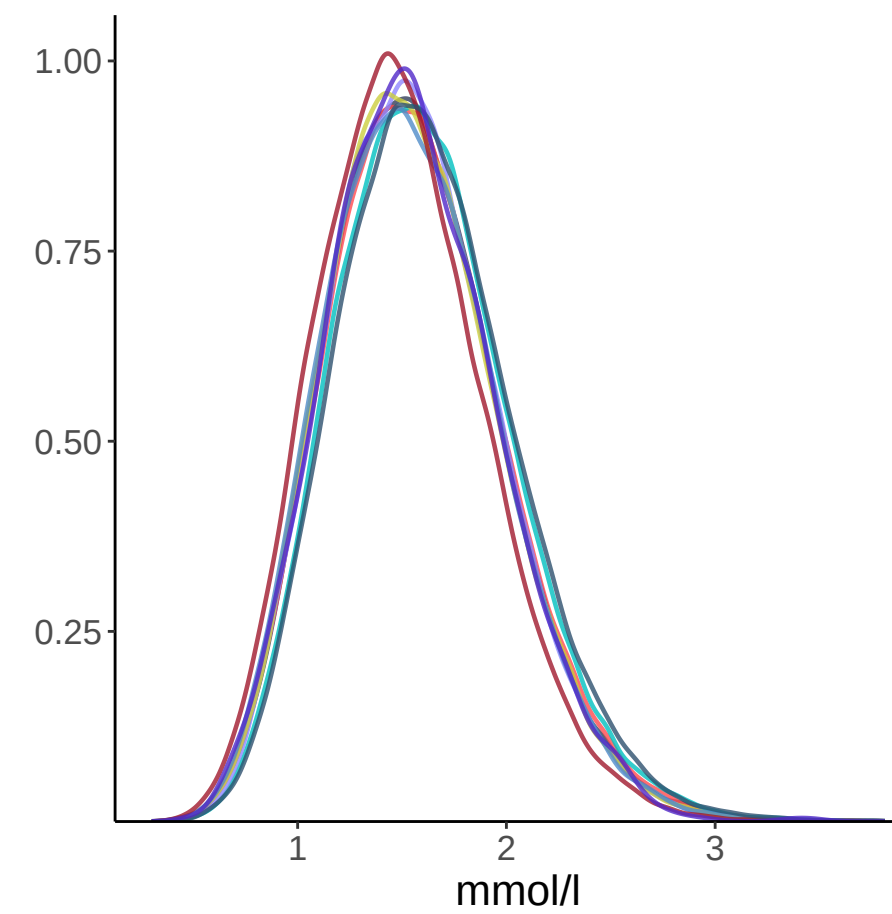
1 2 3 4 5
6 7 8 9



Remnant_C

Spectrometer

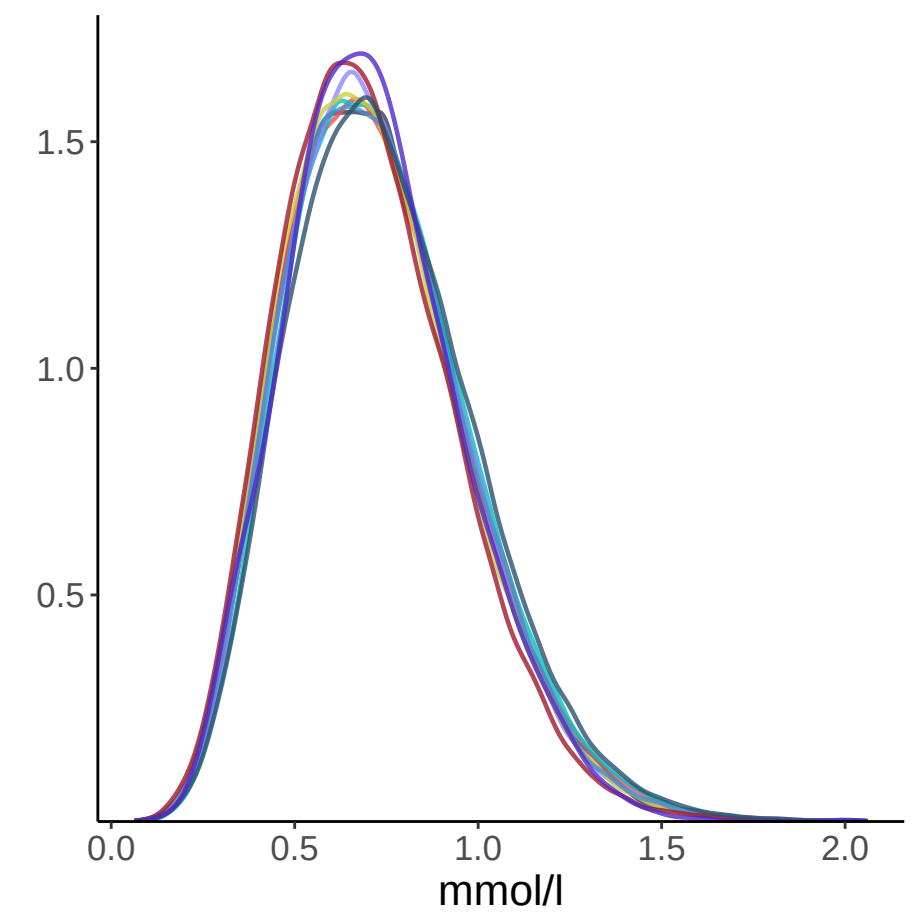
1 2 3 4 5
6 7 8 9



VLDL_C

Spectrometer

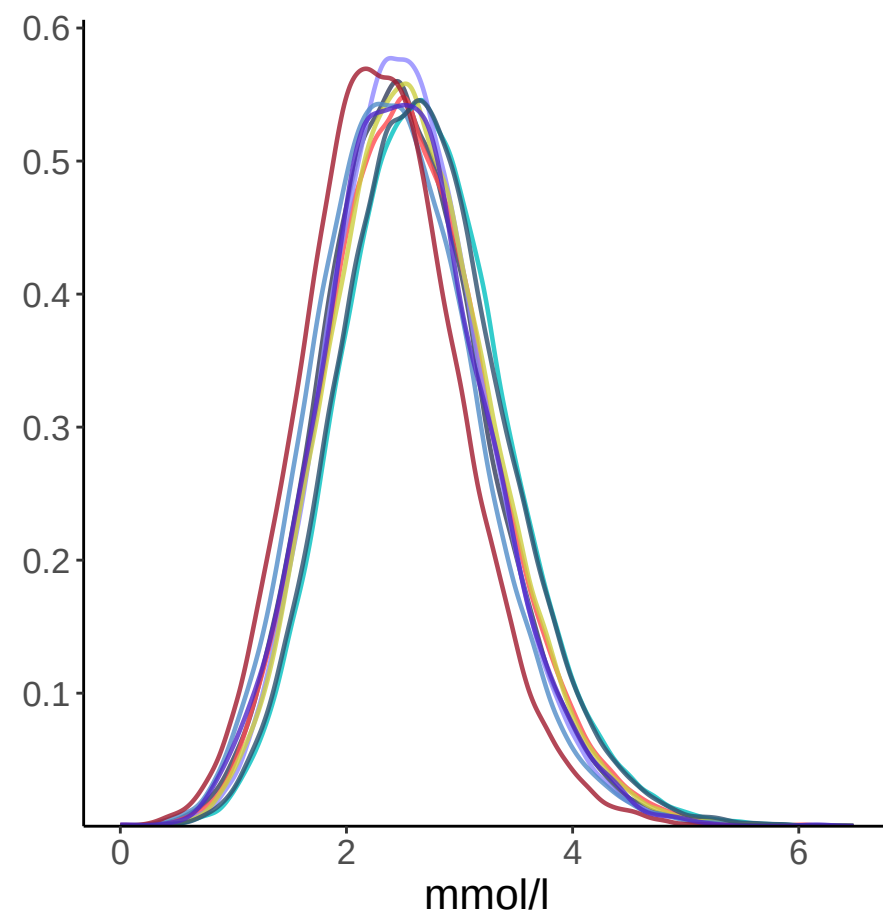
1 2 3 4 5
6 7 8 9



Clinical_LDL_C

Spectrometer

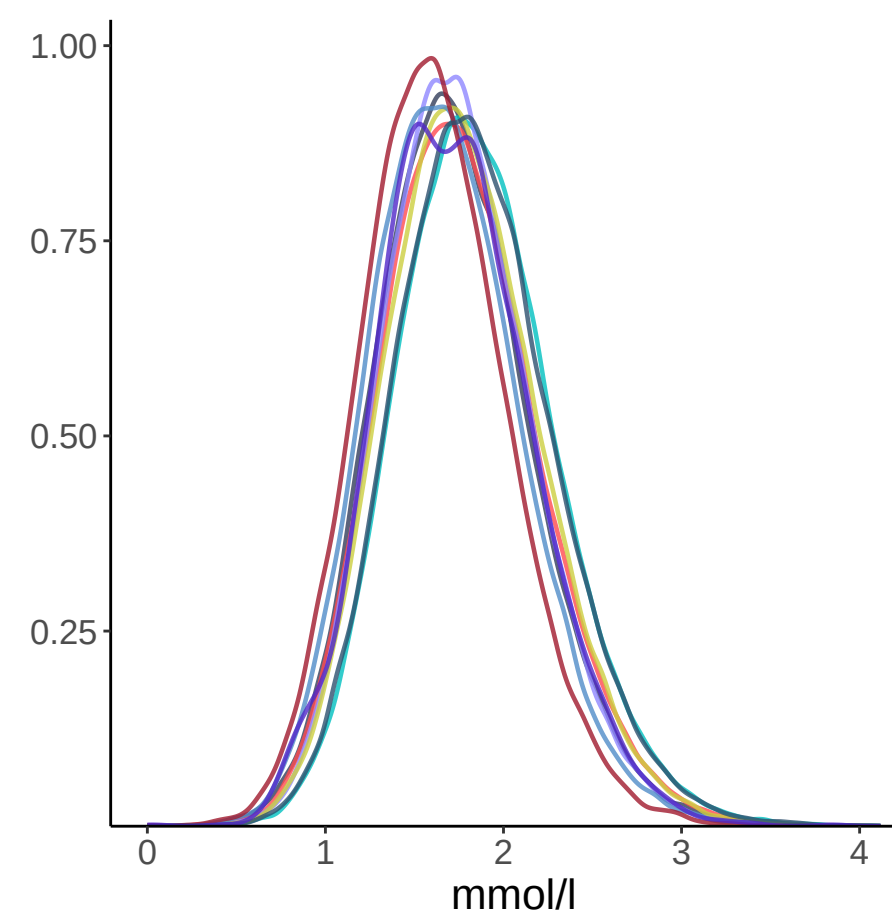
1 2 3 4 5
6 7 8 9



LDL_C

Spectrometer

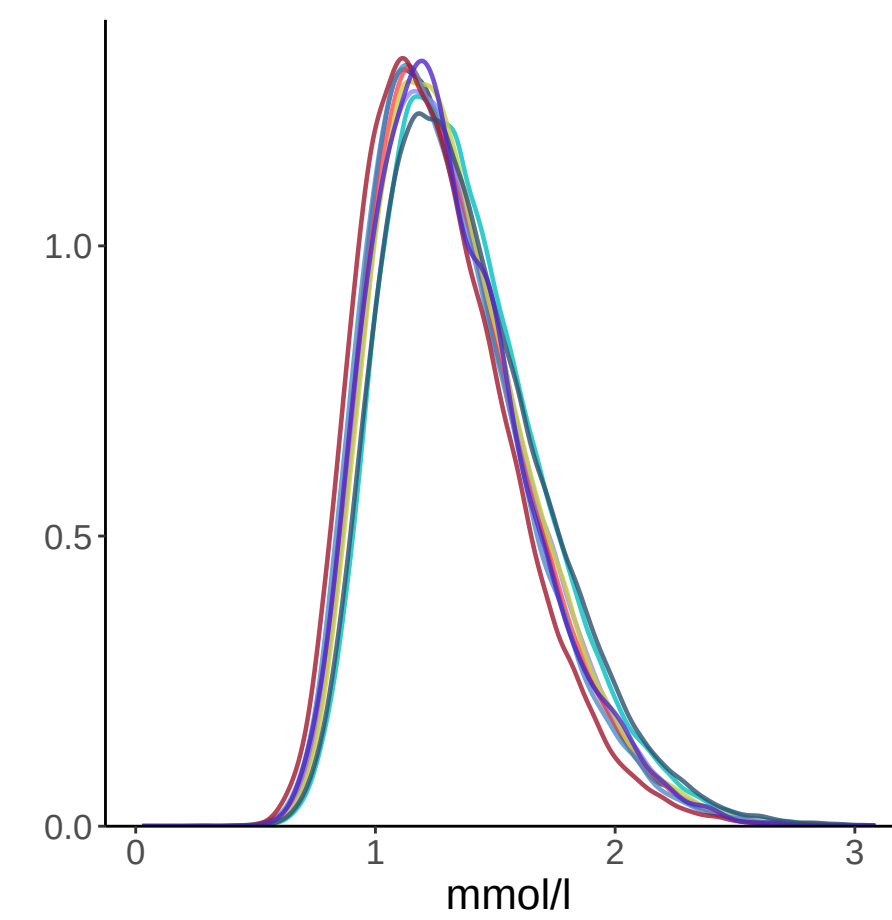
1 2 3 4 5
6 7 8 9



HDL_C

Spectrometer

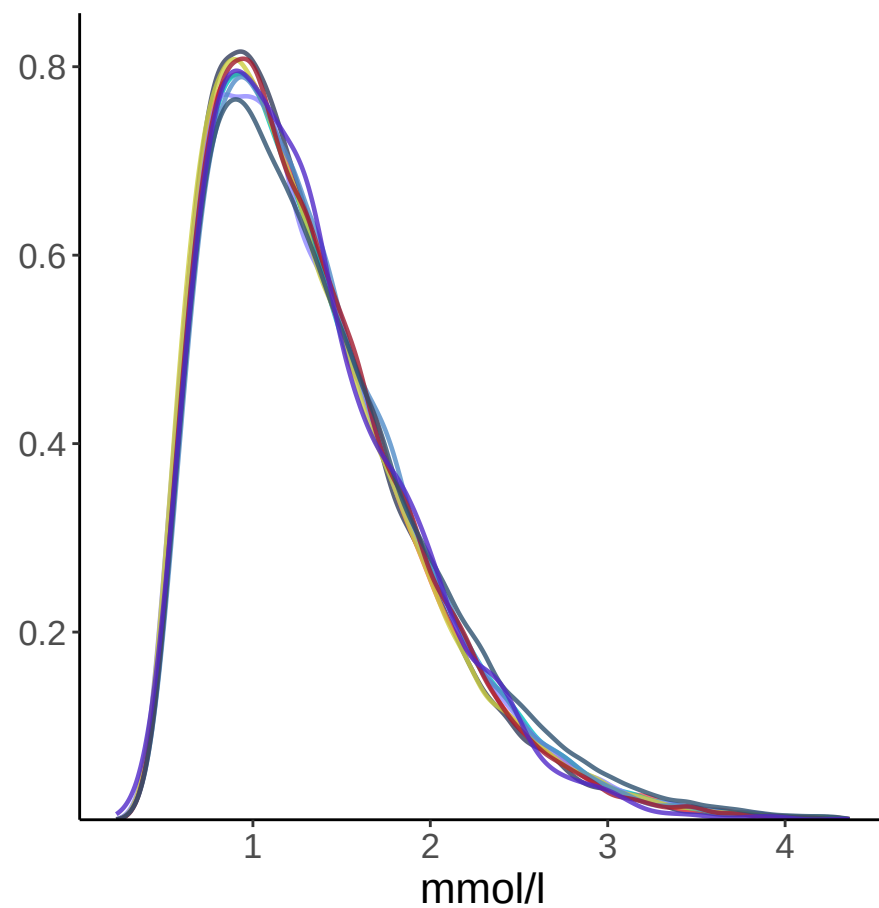
1 2 3 4 5
6 7 8 9



Triglycerides

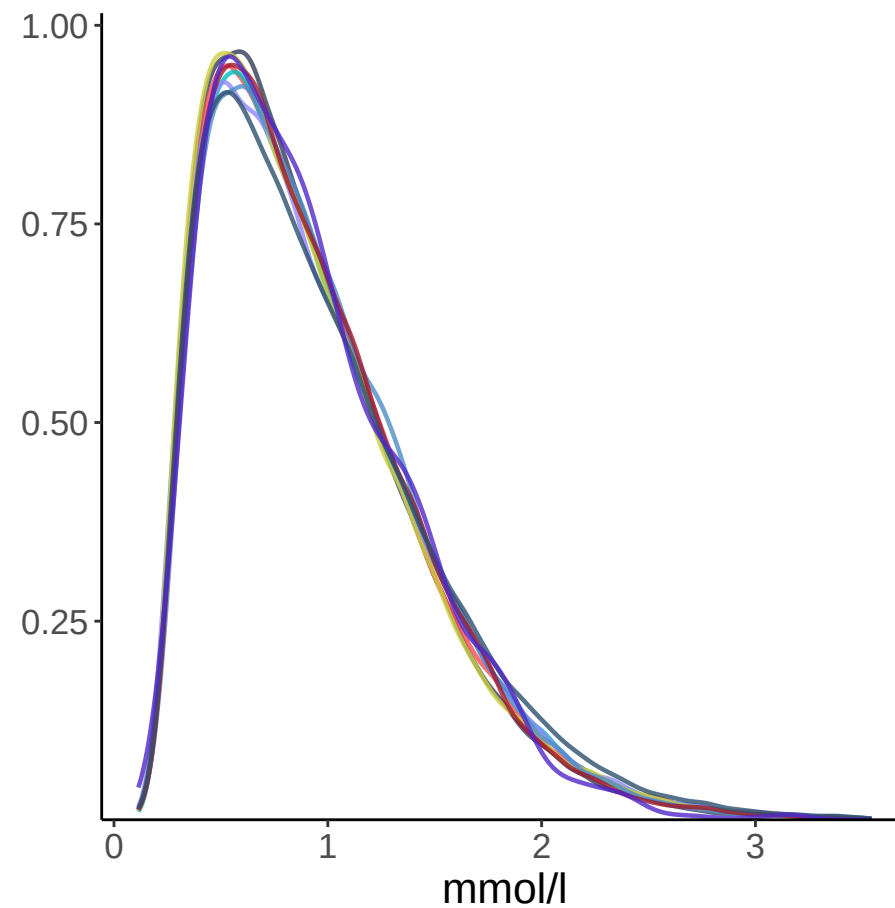
Total_TG

Spectrometer



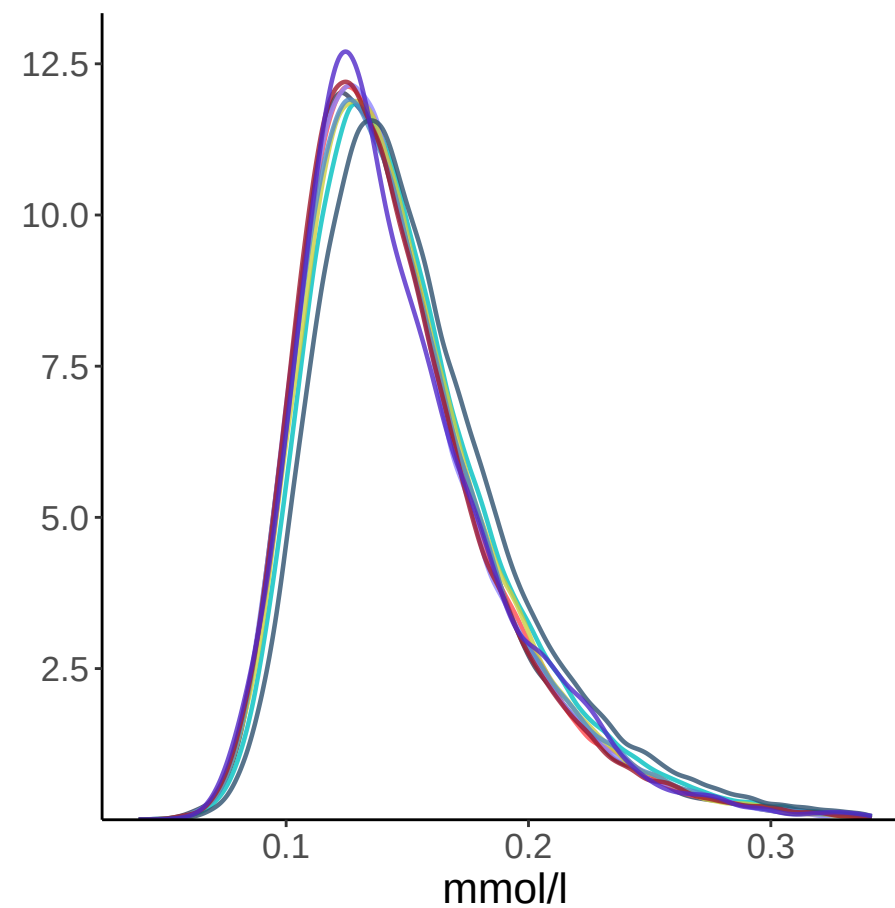
VLDL_TG

Spectrometer



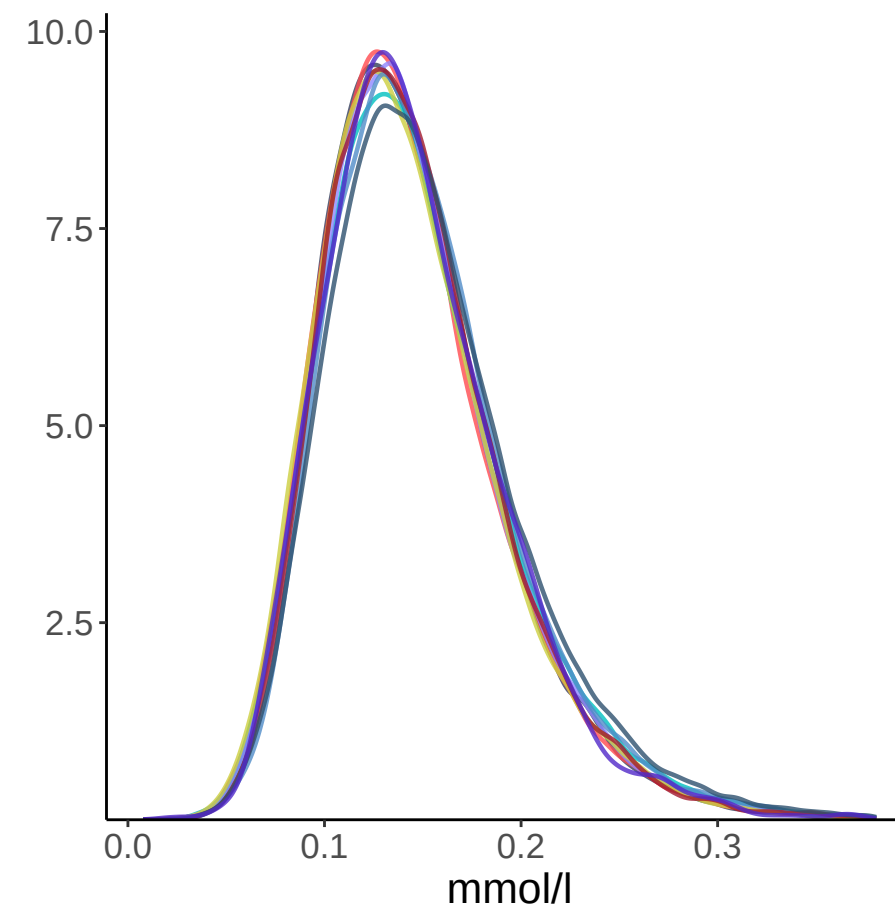
LDL_TG

Spectrometer



HDL_TG

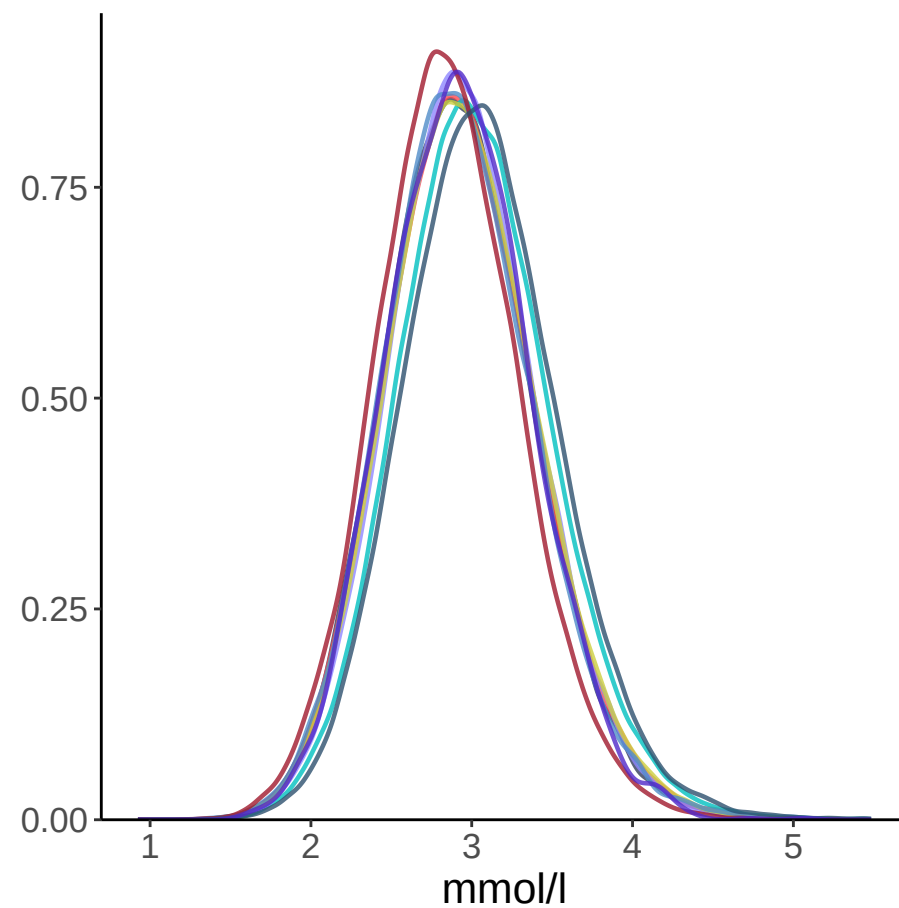
Spectrometer



Phospholipids

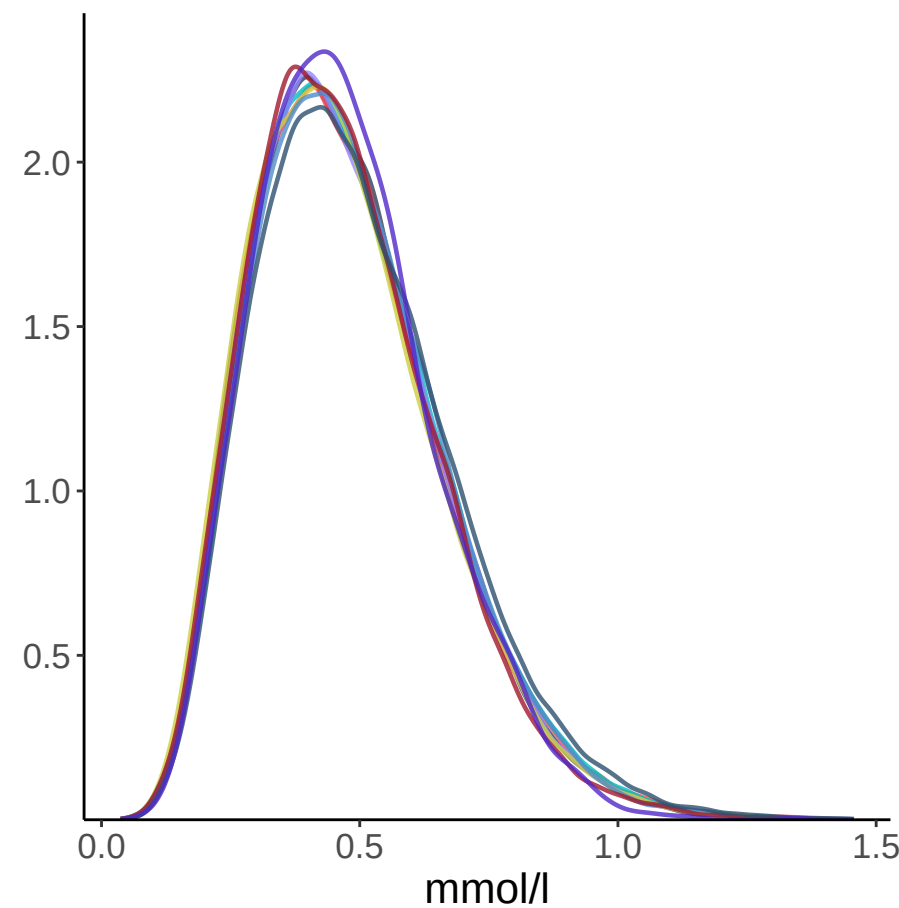
Total_PL

Spectrometer



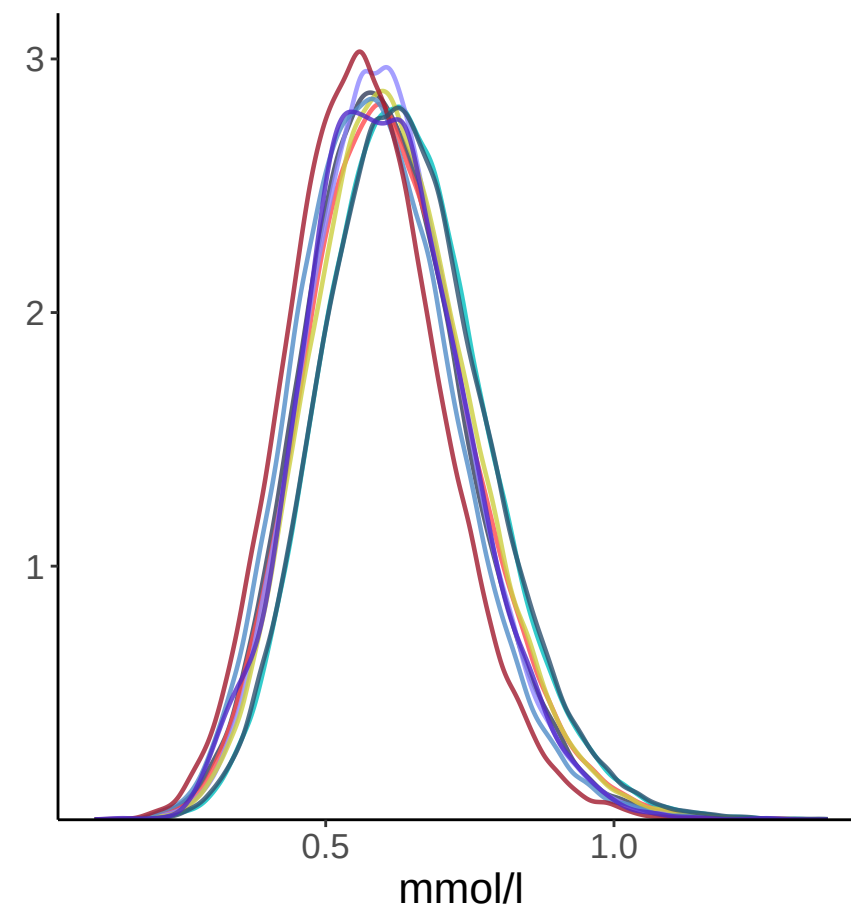
VLDL_PL

Spectrometer



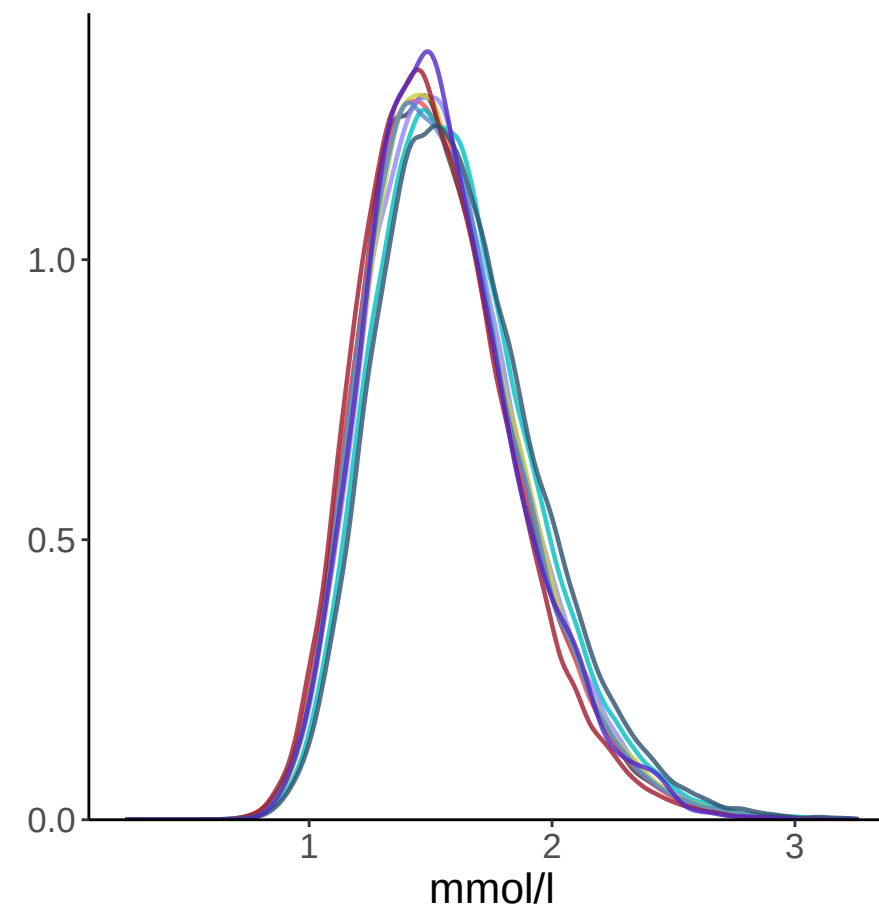
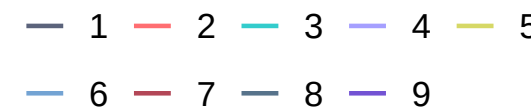
LDL_PL

Spectrometer



HDL_PL

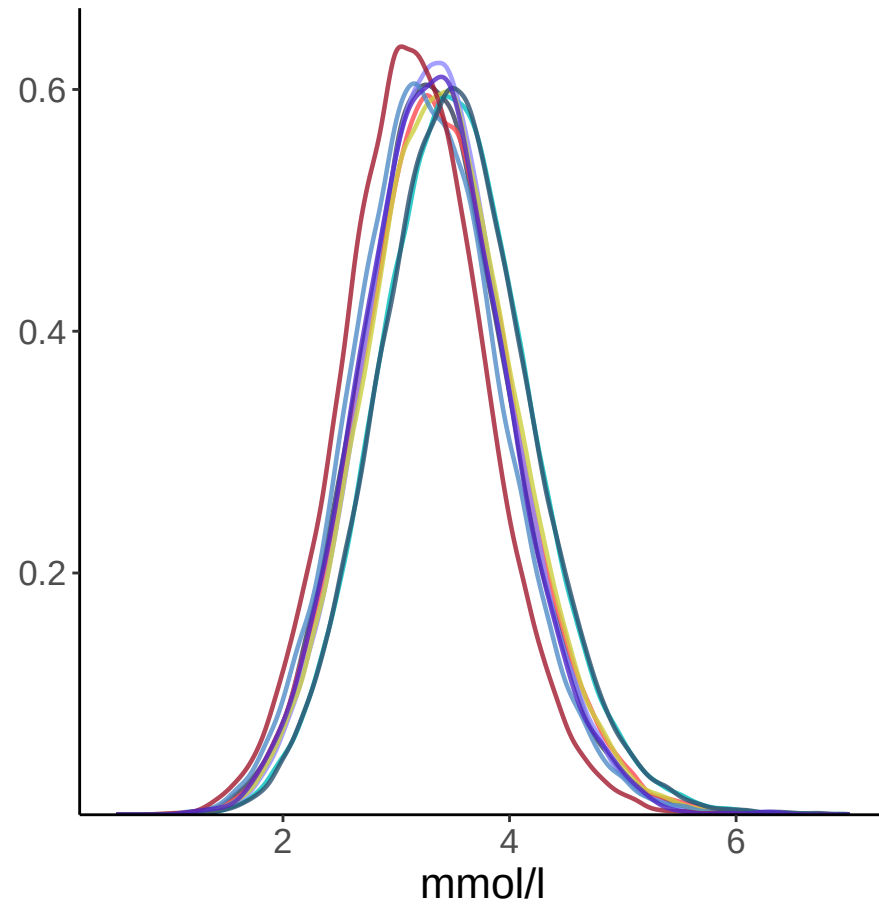
Spectrometer



Cholesteryl esters

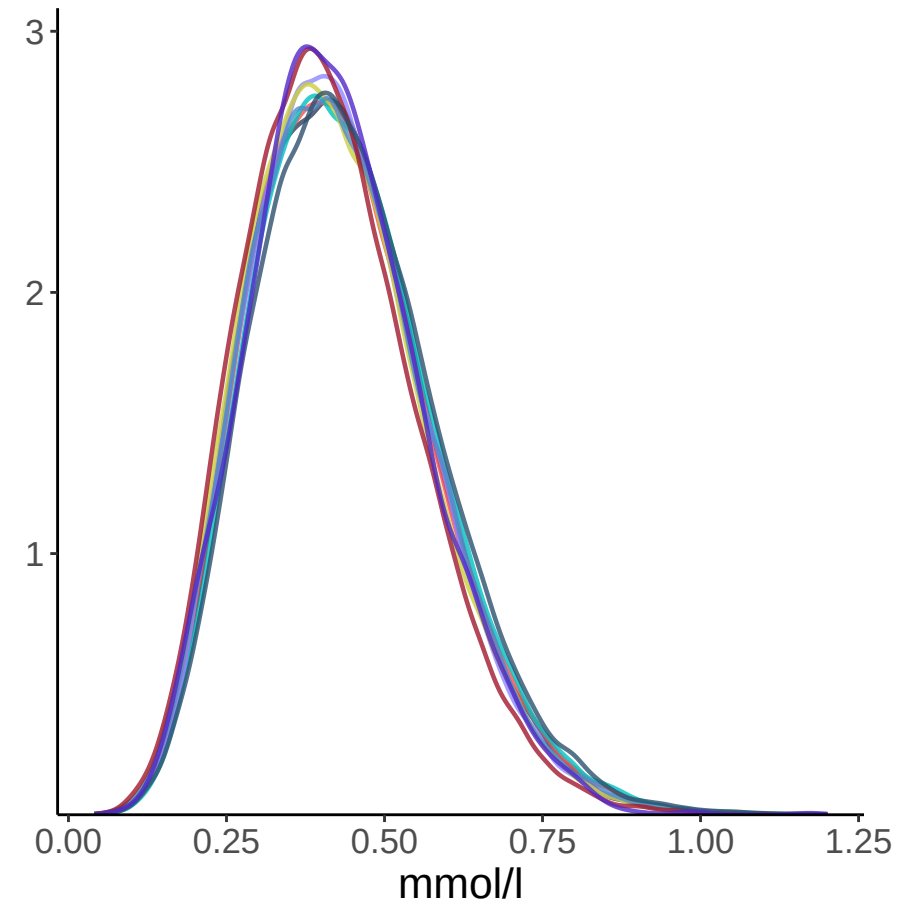
Total_CE

Spectrometer



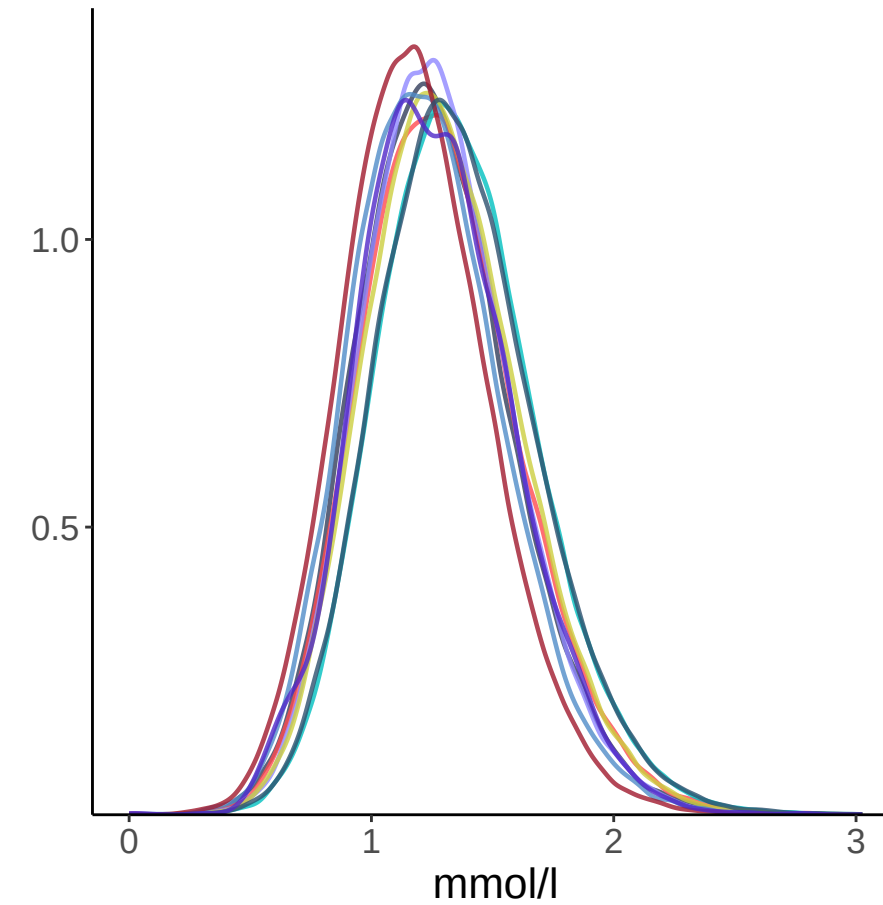
VLDL_CE

Spectrometer



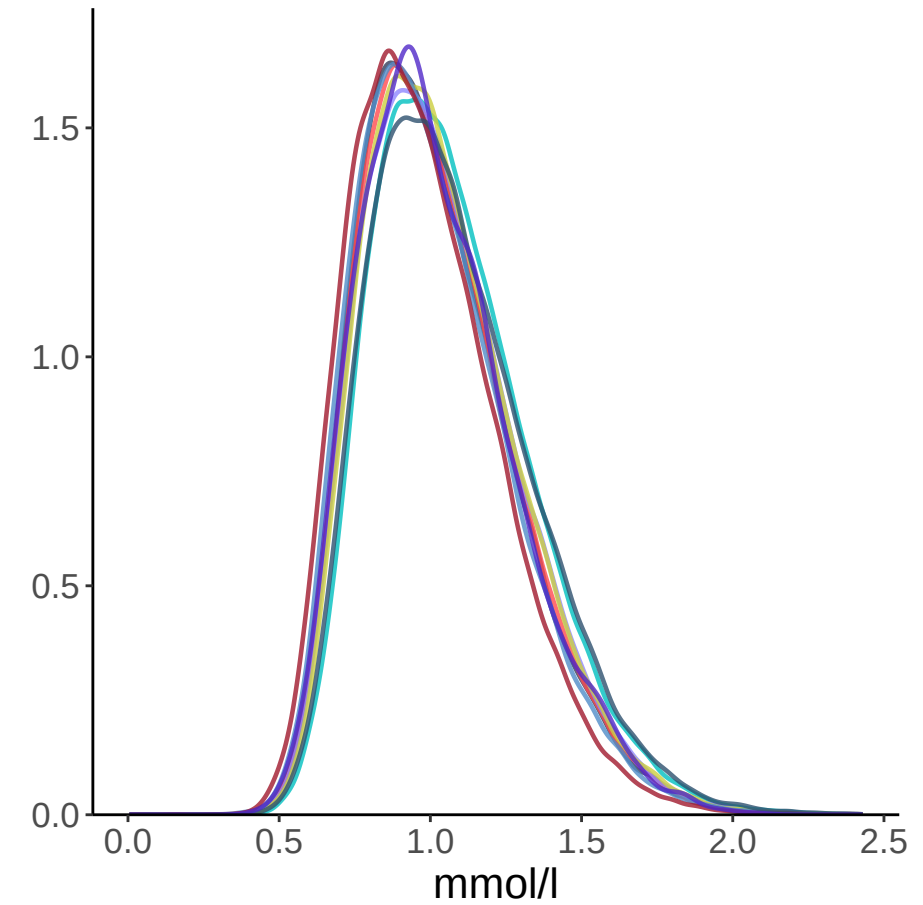
LDL_CE

Spectrometer



HDL_CE

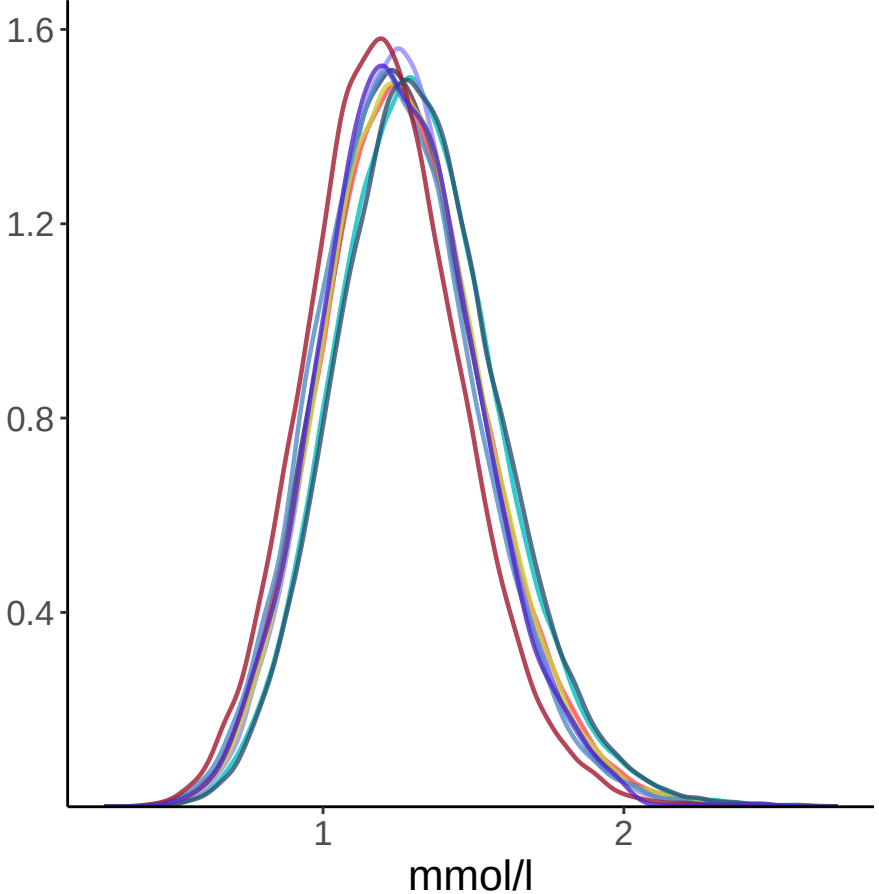
Spectrometer



Free cholesterol

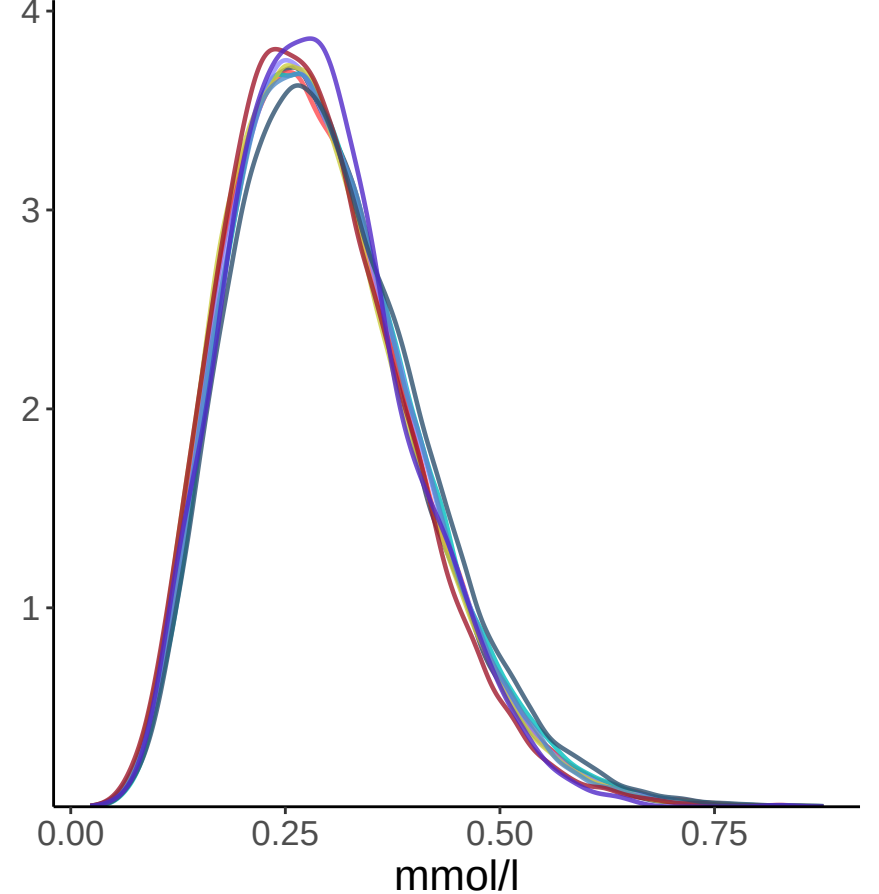
Total_FC

Spectrometer



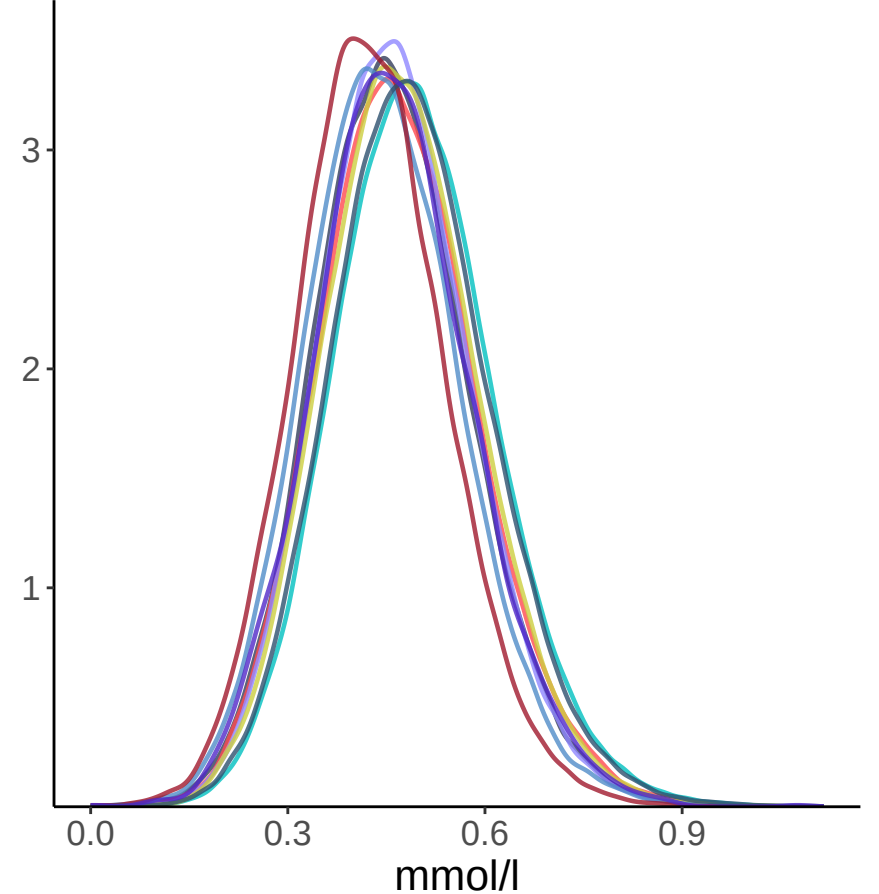
VLDL_FC

Spectrometer



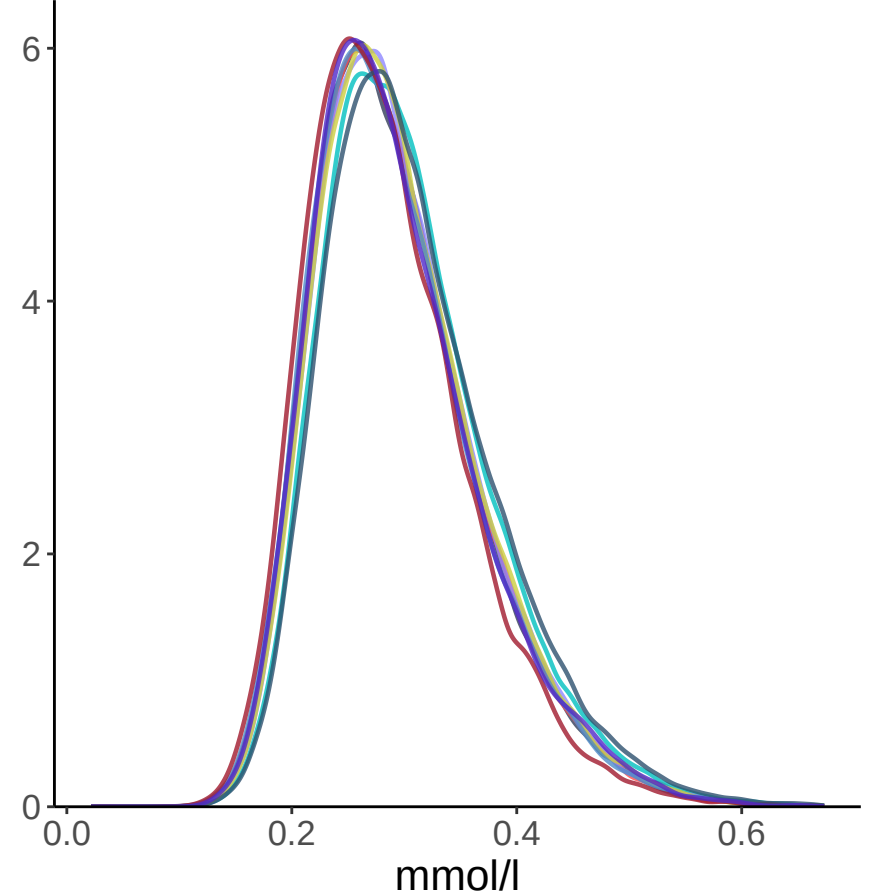
LDL_FC

Spectrometer

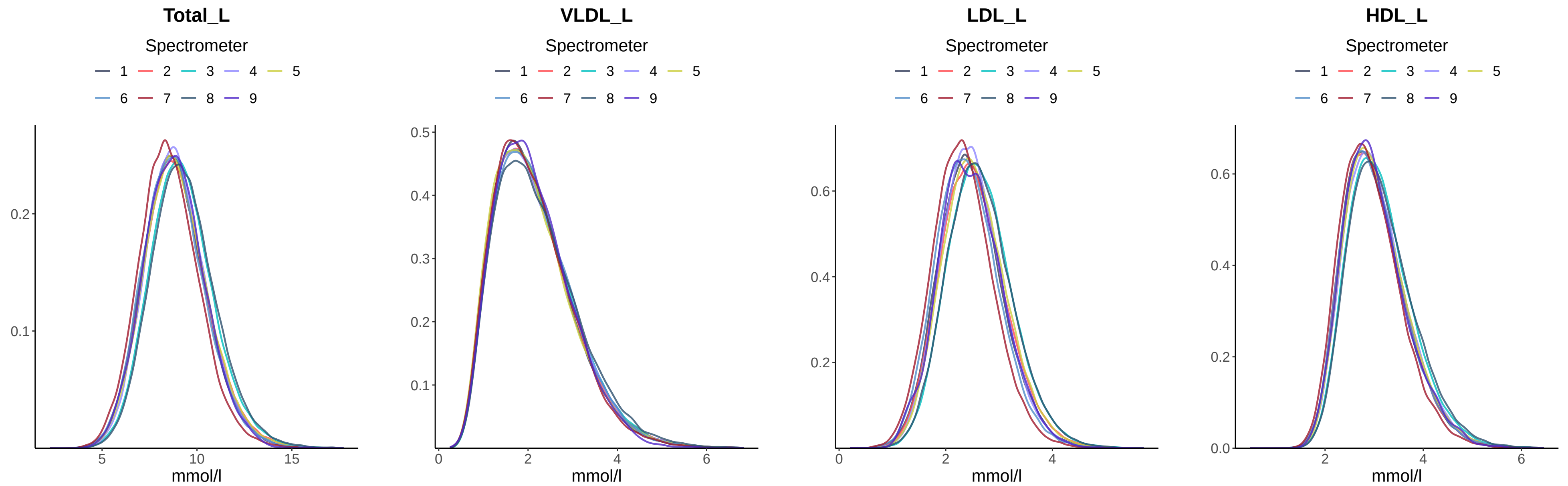


HDL_FC

Spectrometer



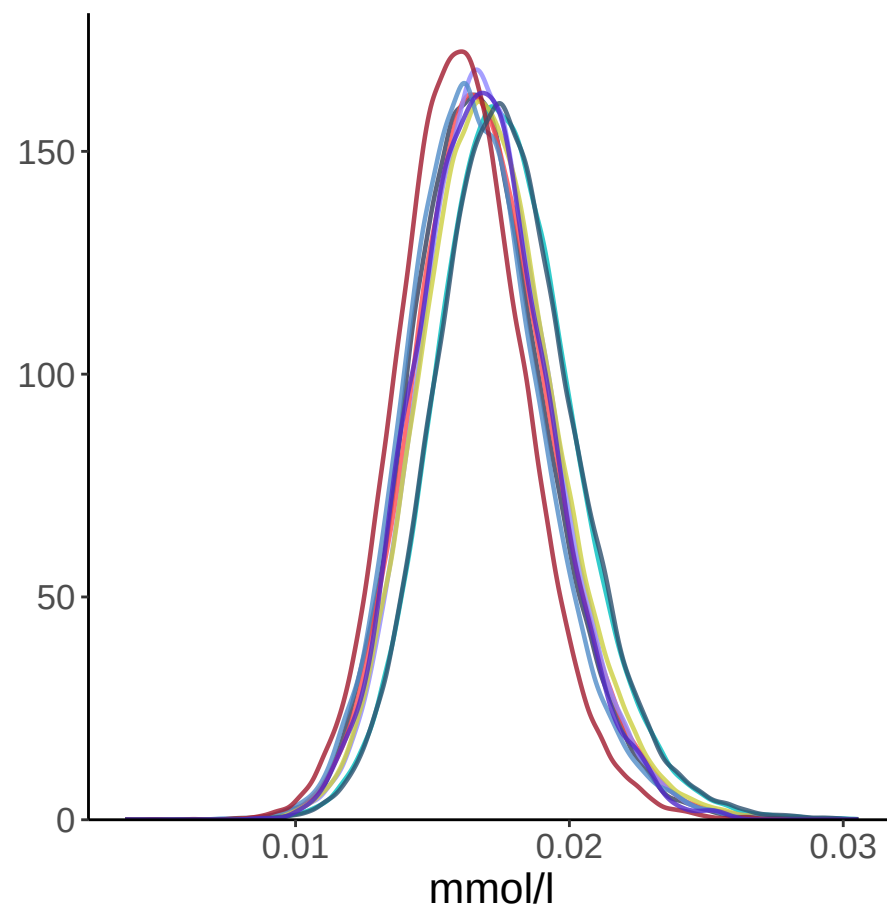
Total lipids



Lipoprotein particle concentrations

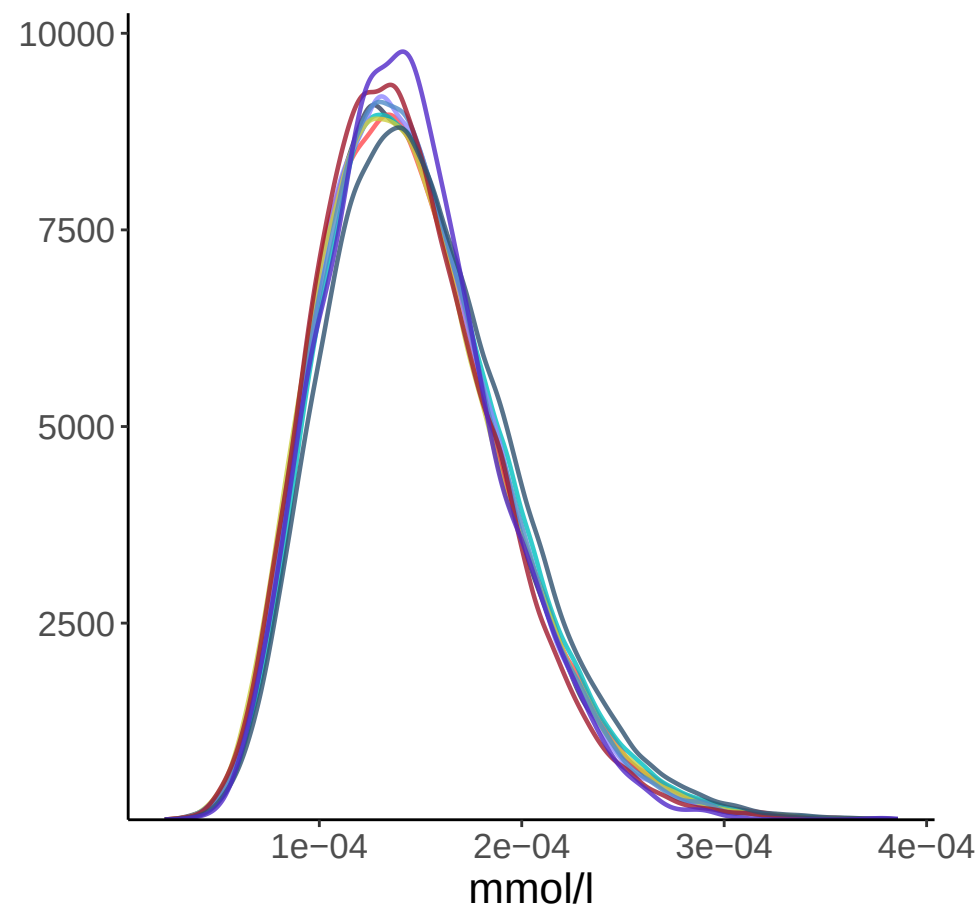
Total_P

Spectrometer



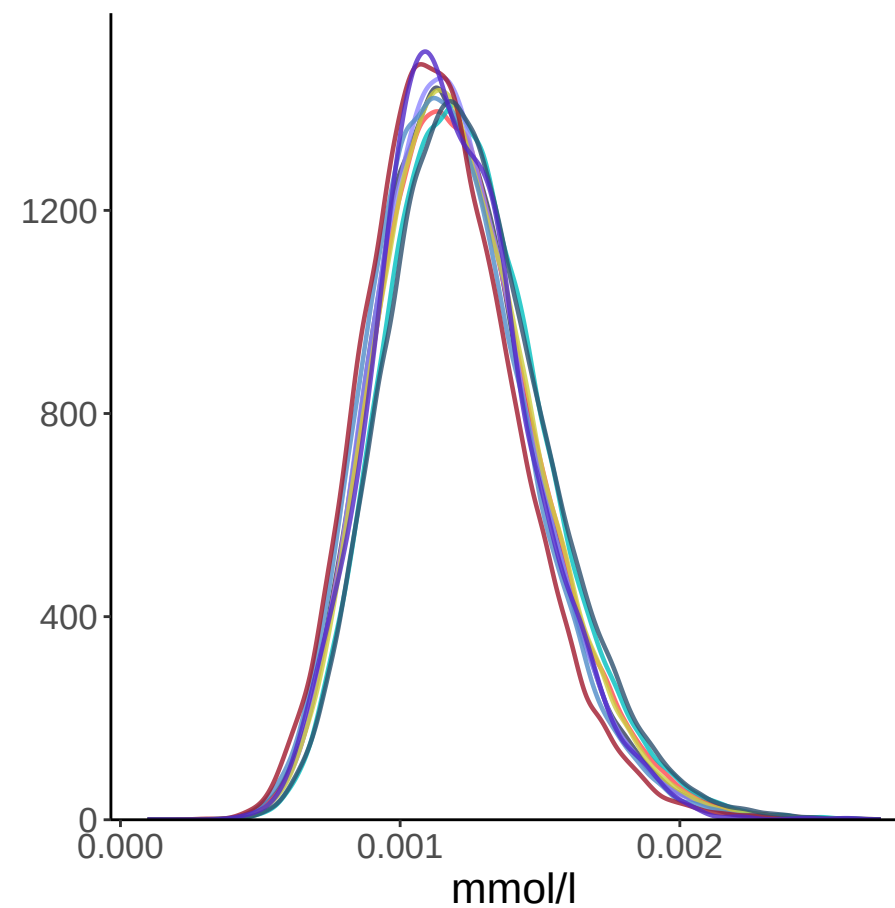
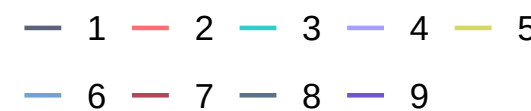
VLDL_P

Spectrometer



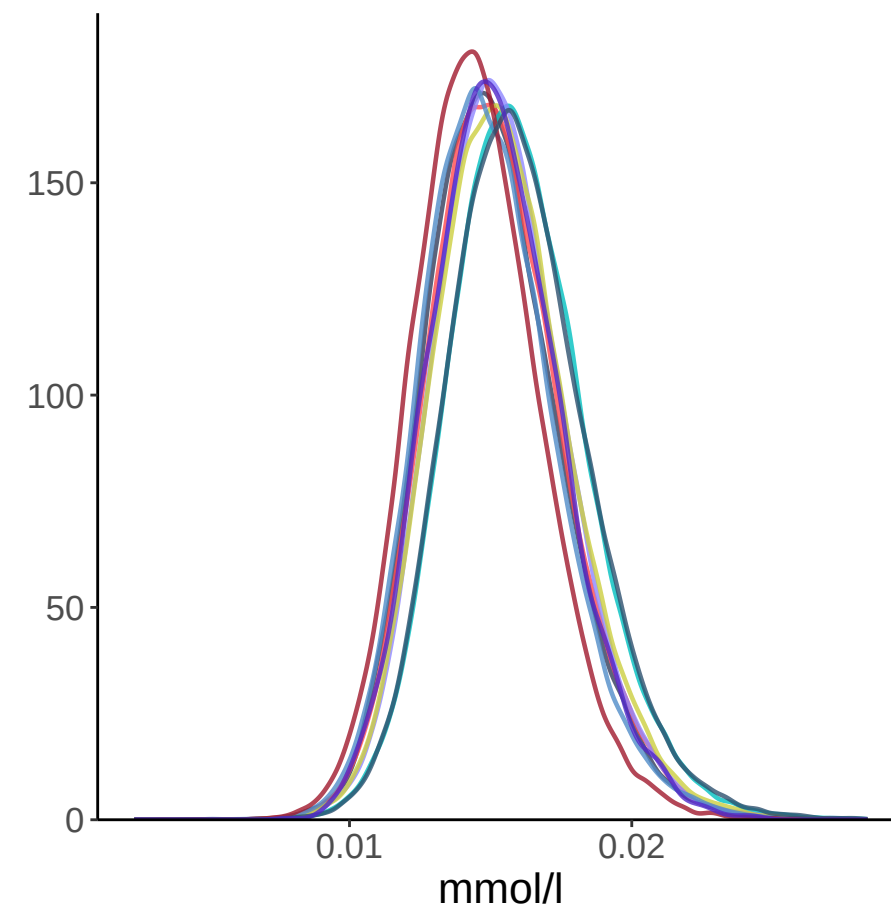
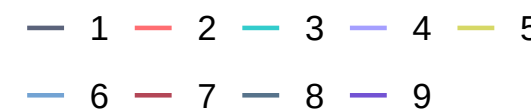
LDL_P

Spectrometer



HDL_P

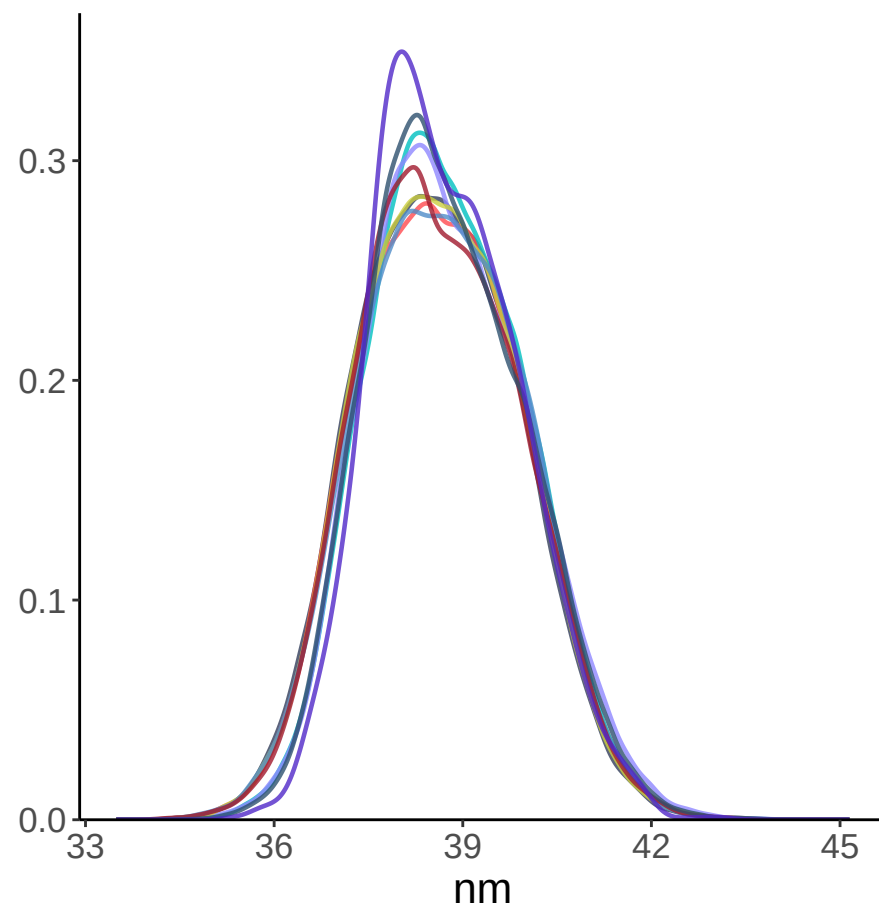
Spectrometer



Lipoprotein particle sizes

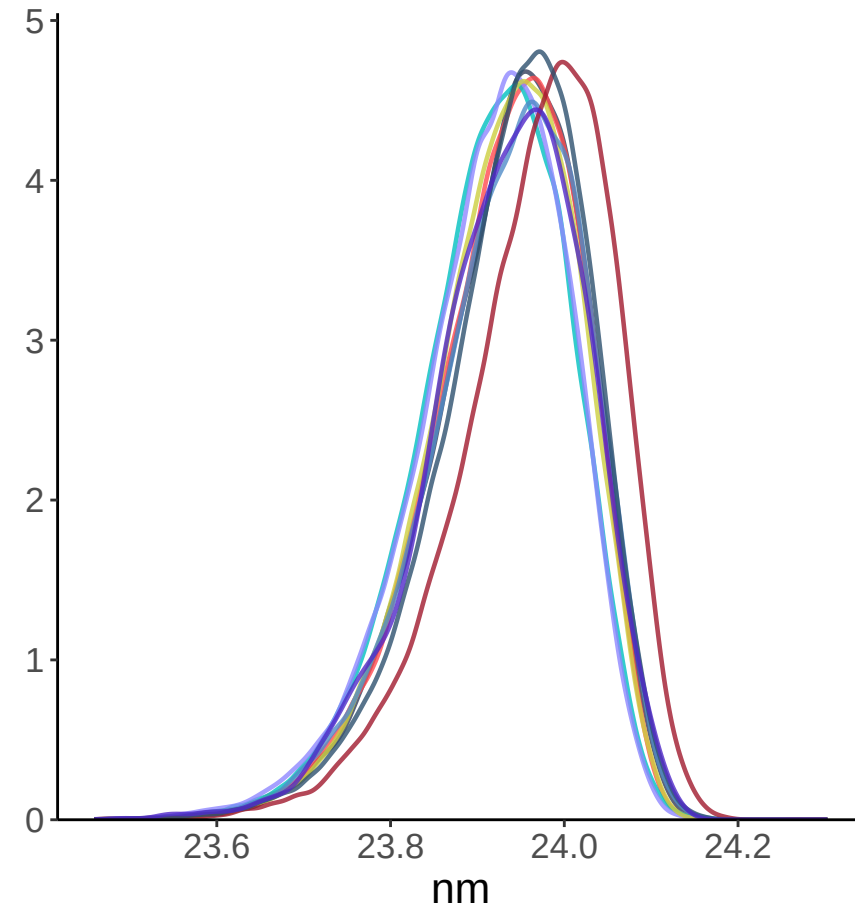
VLDL_size

Spectrometer



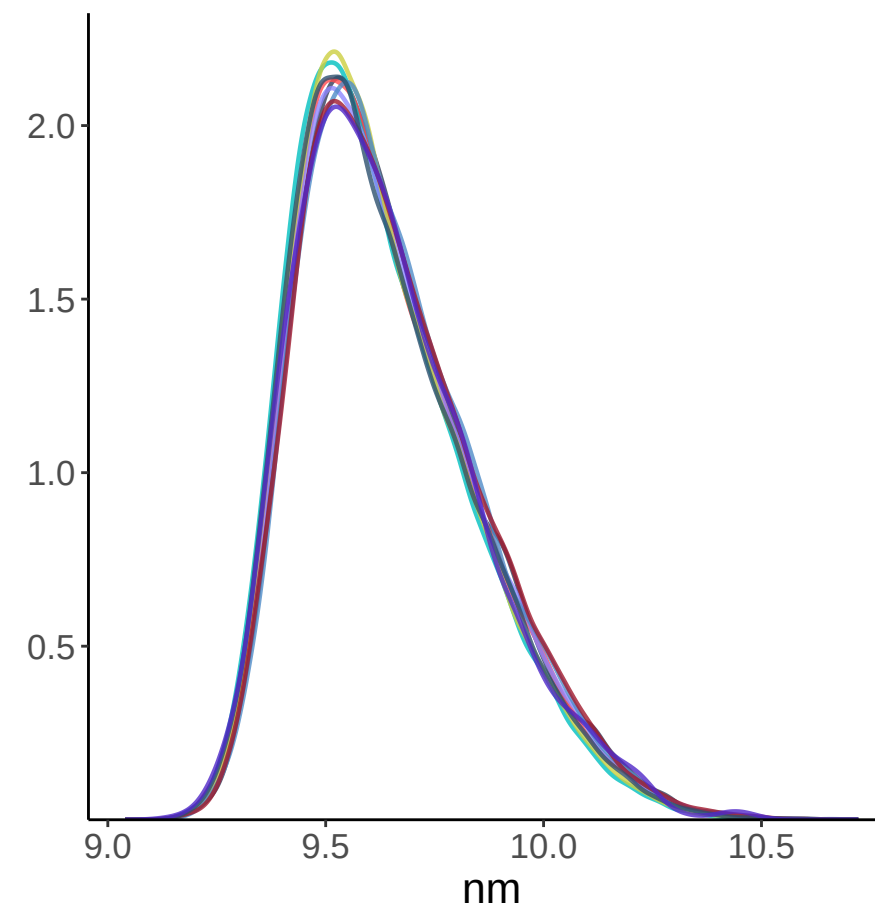
LDL_size

Spectrometer

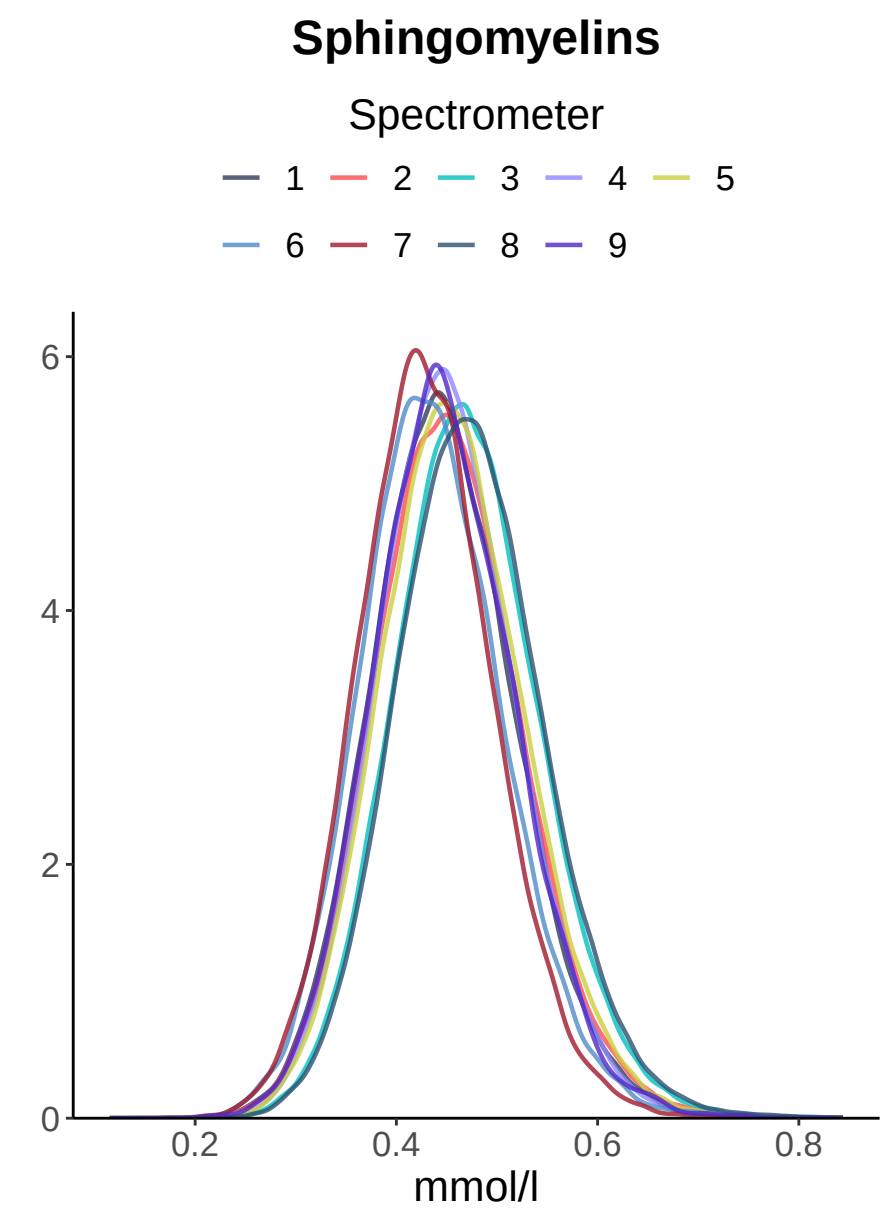
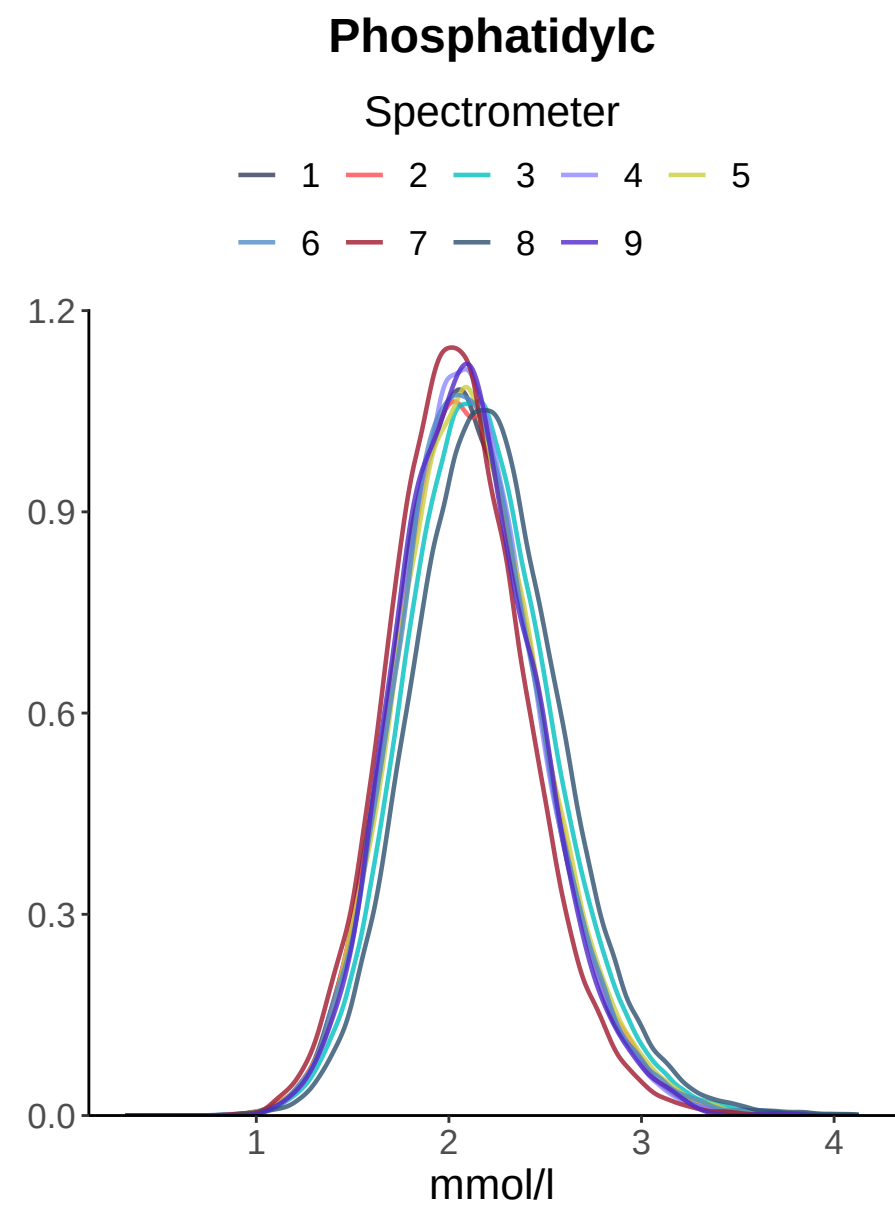
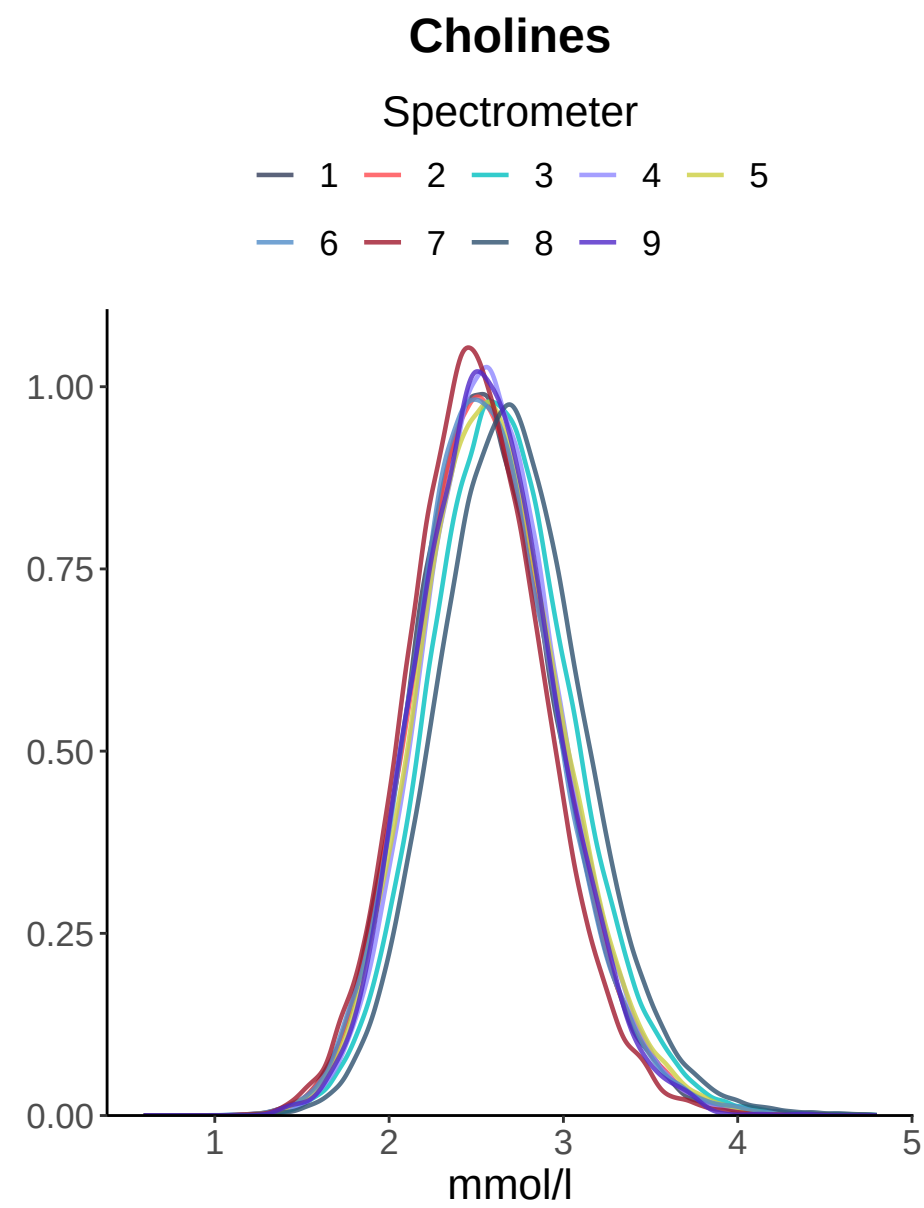
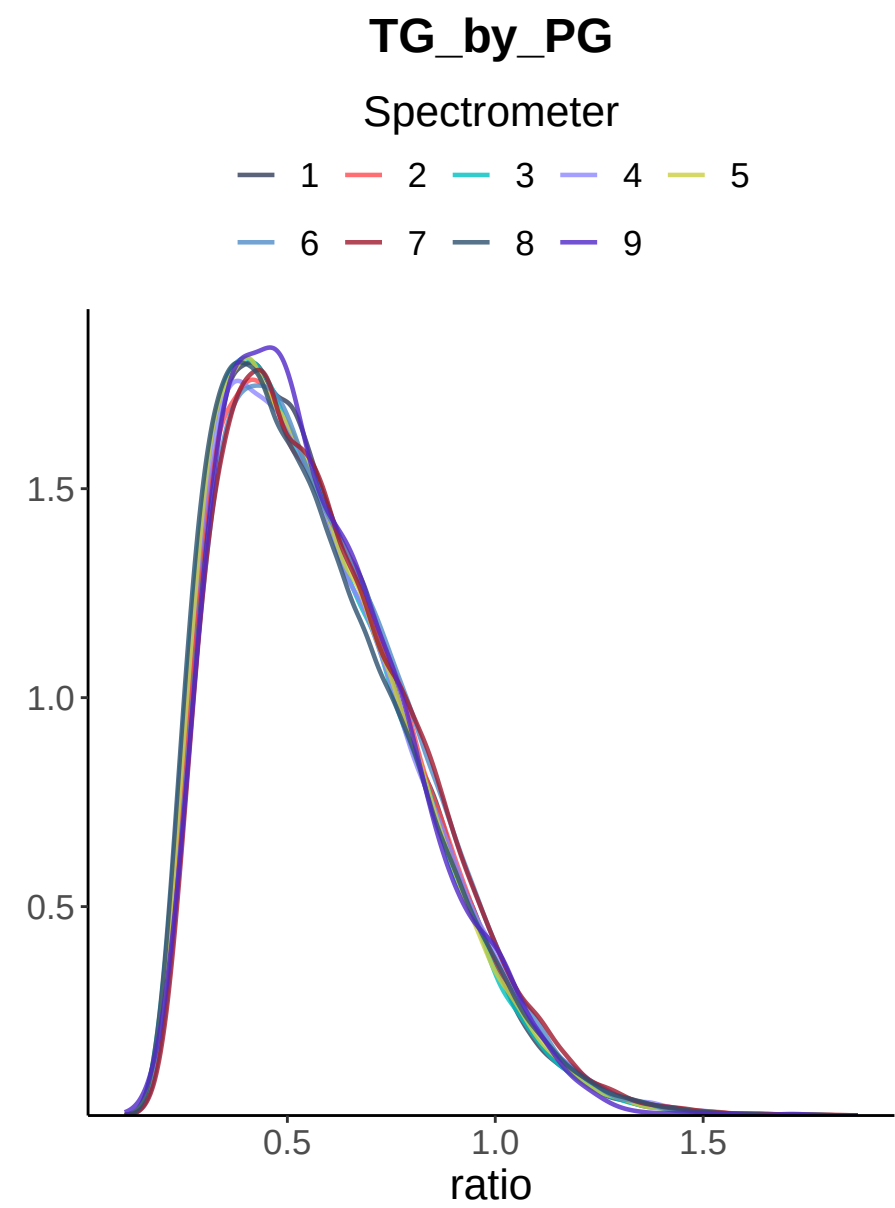
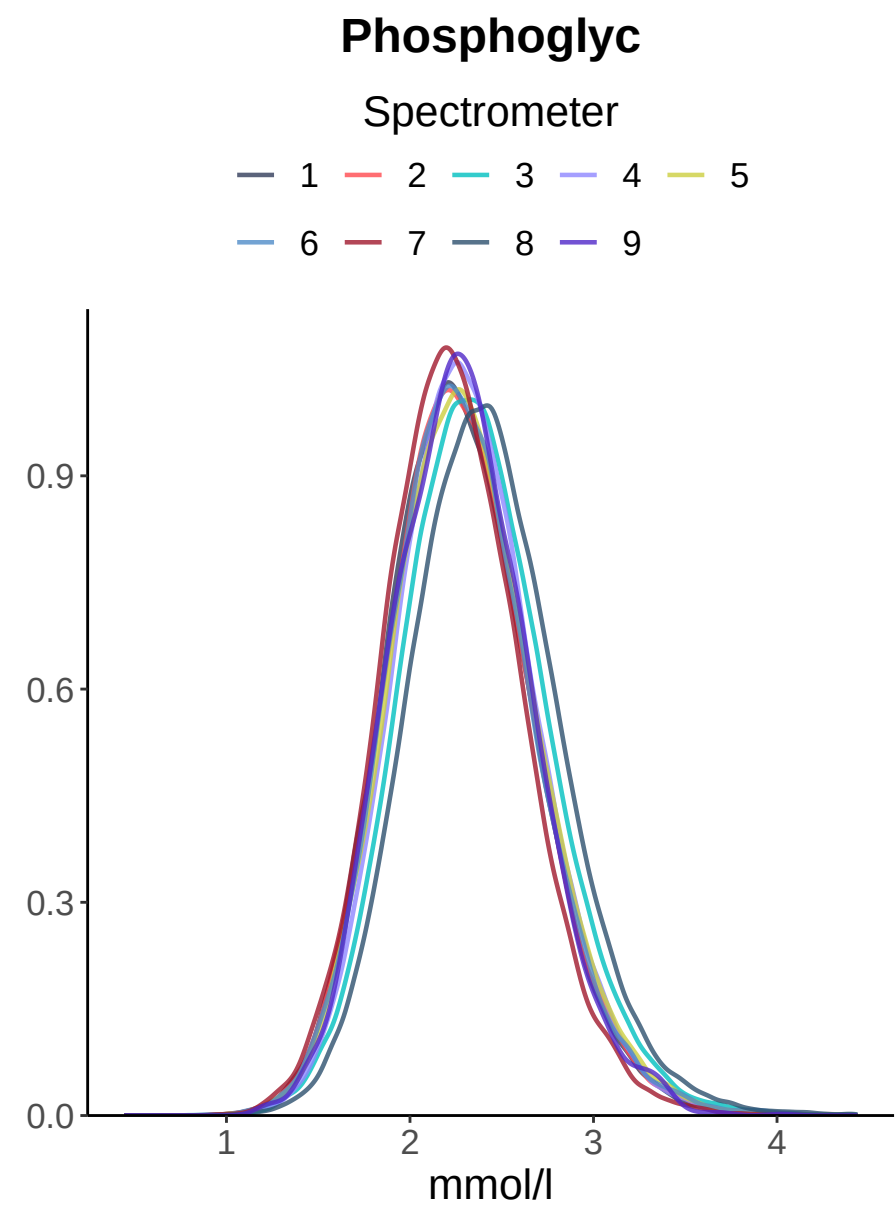


HDL_size

Spectrometer



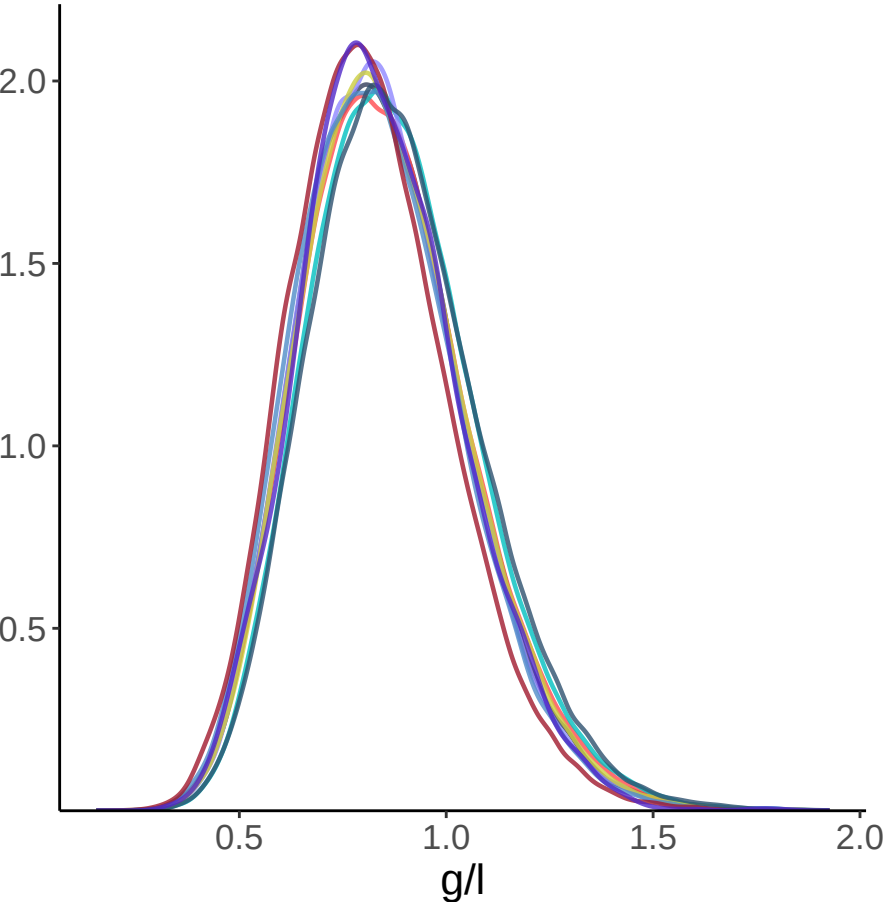
Other lipids



Apolipoproteins

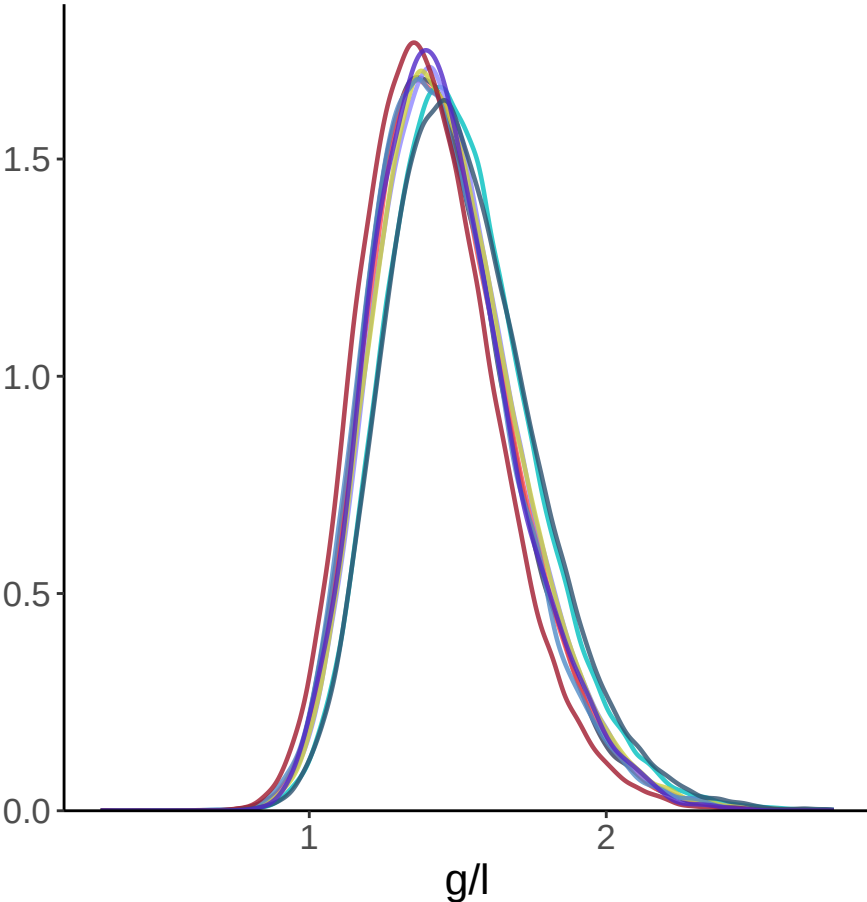
ApoB

Spectrometer



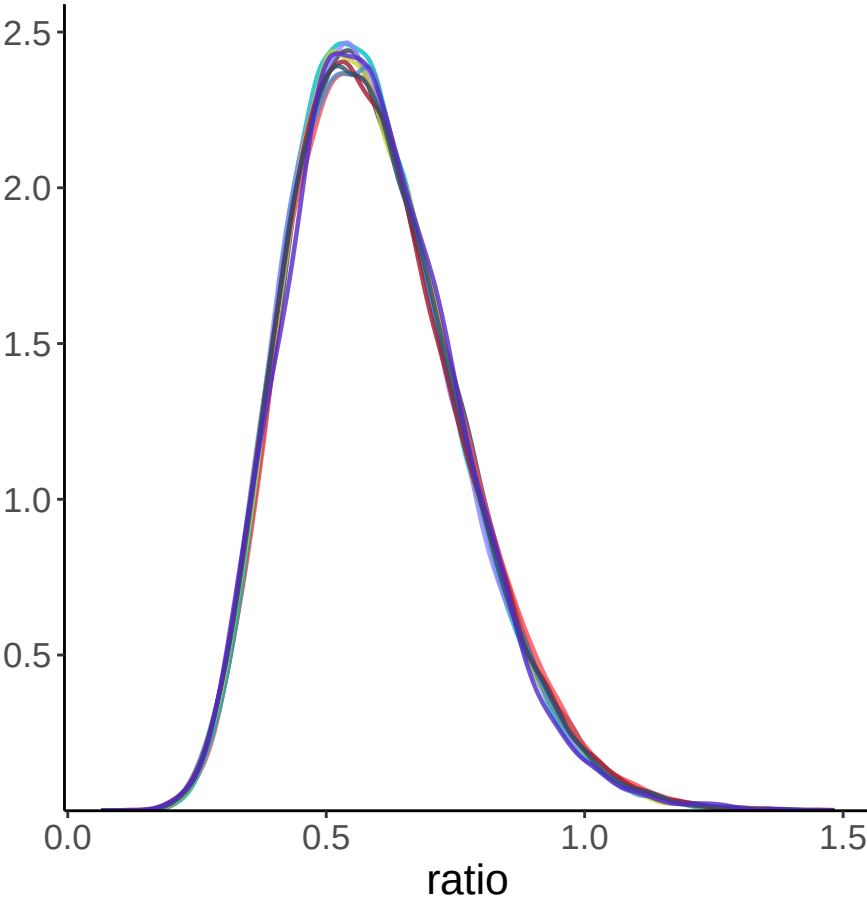
ApoA1

Spectrometer

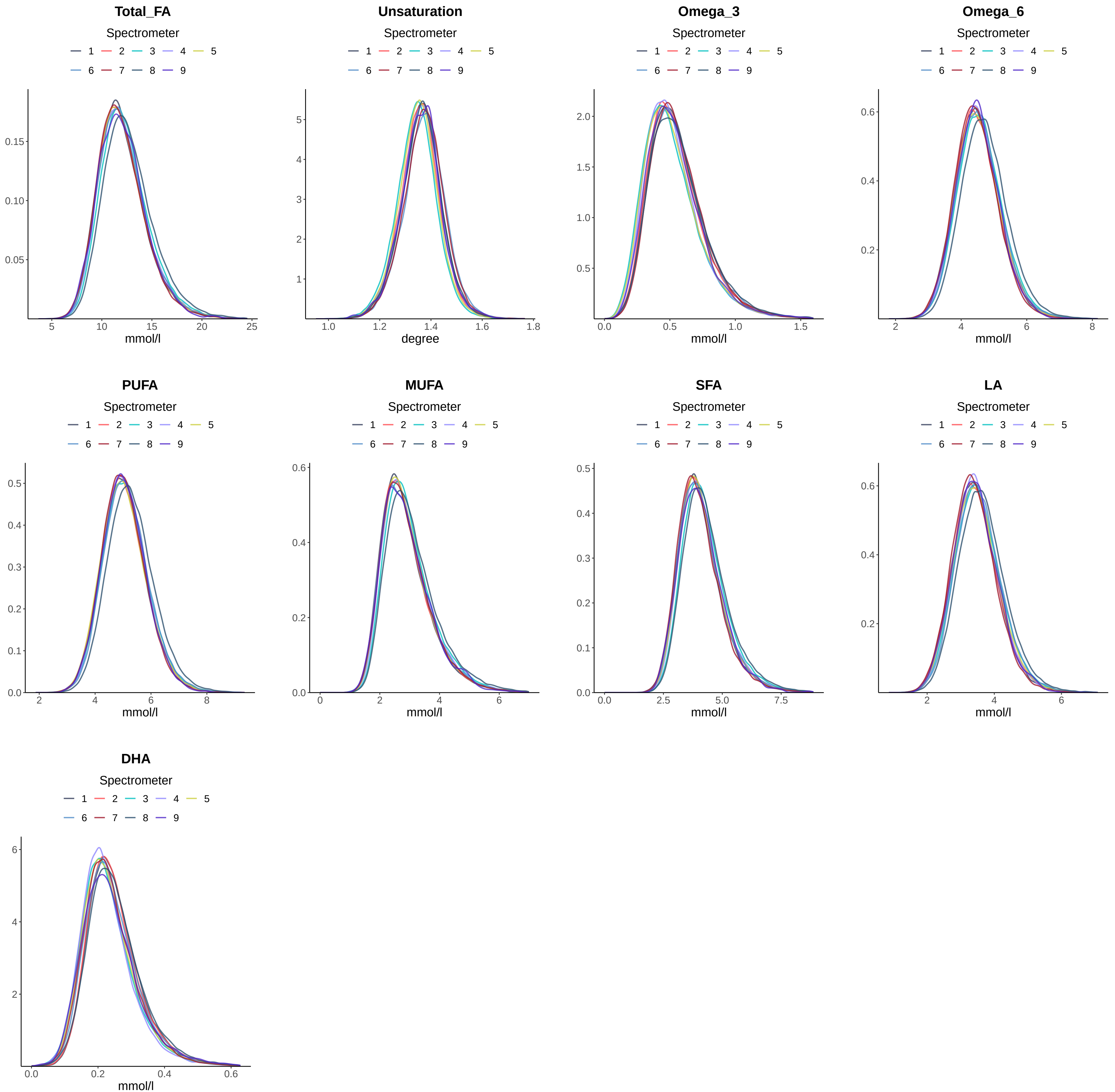


ApoB_by_ApoA1

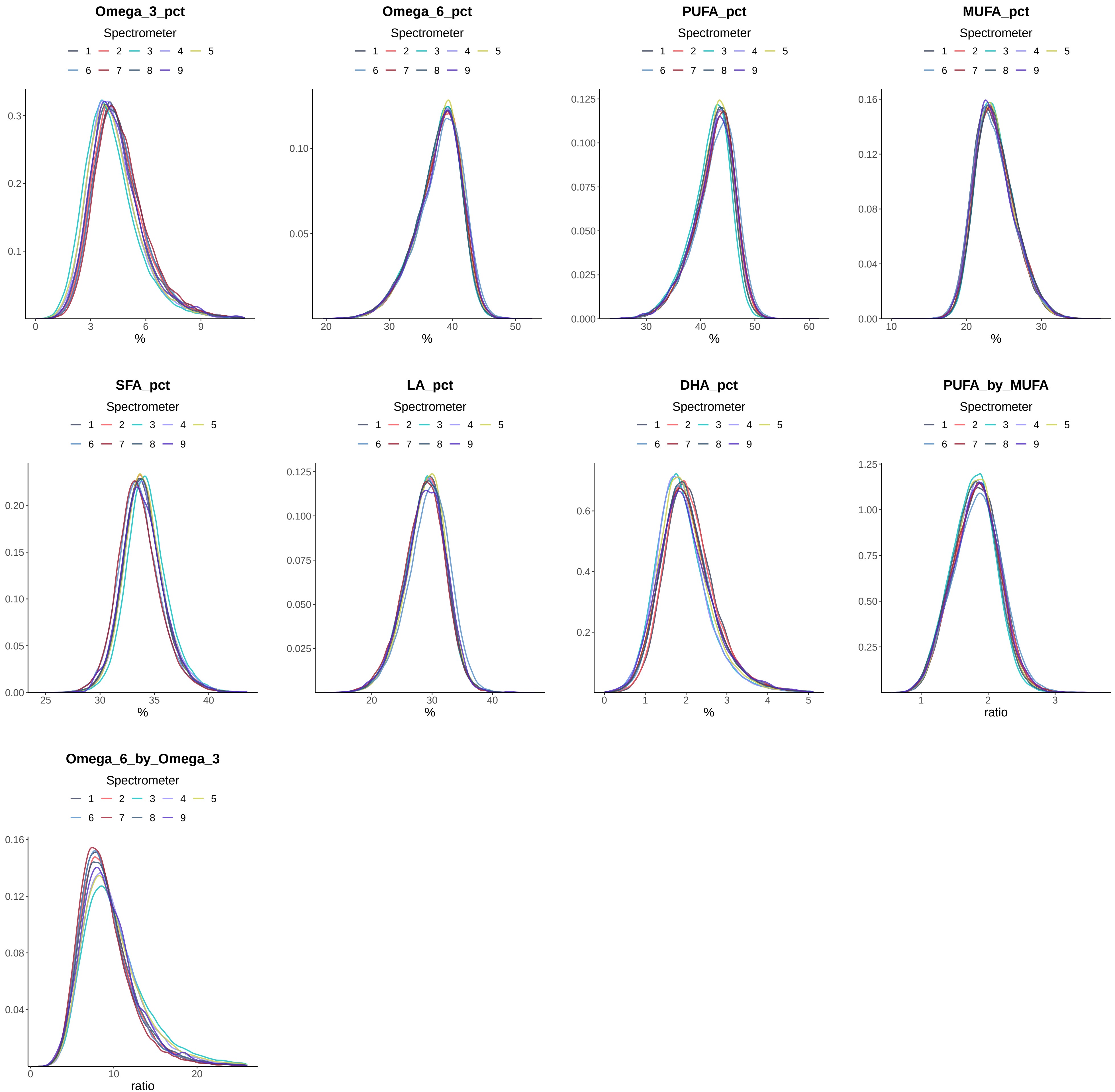
Spectrometer



Fatty acids



Fatty acid ratios

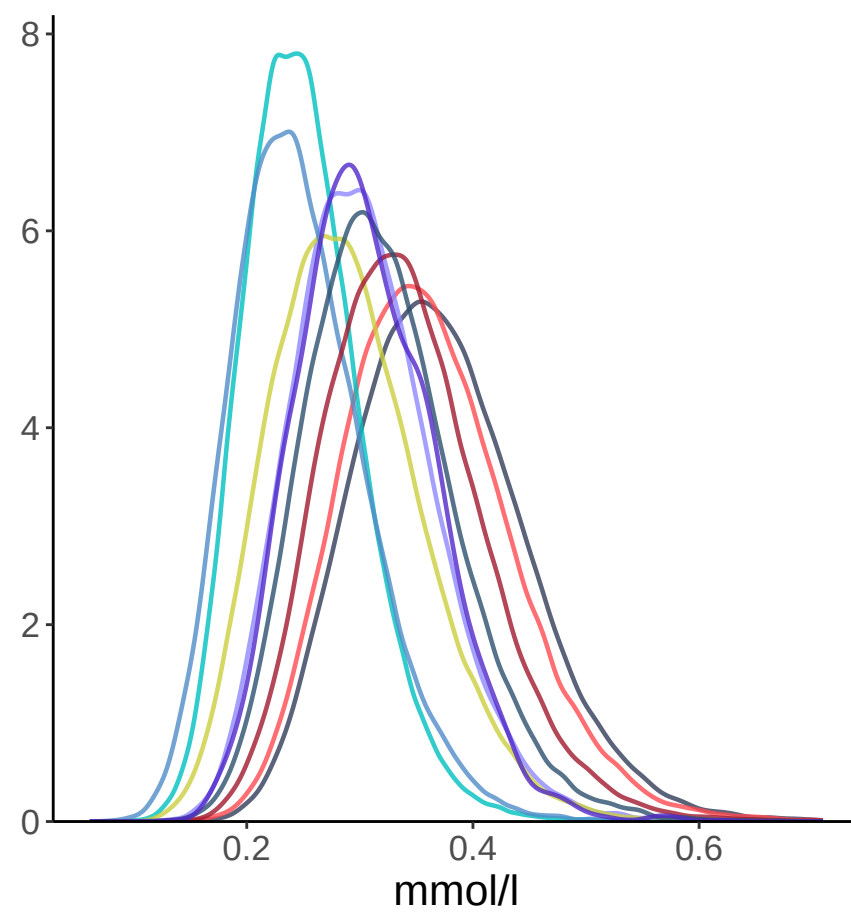


Amino acids

Ala

Spectrometer

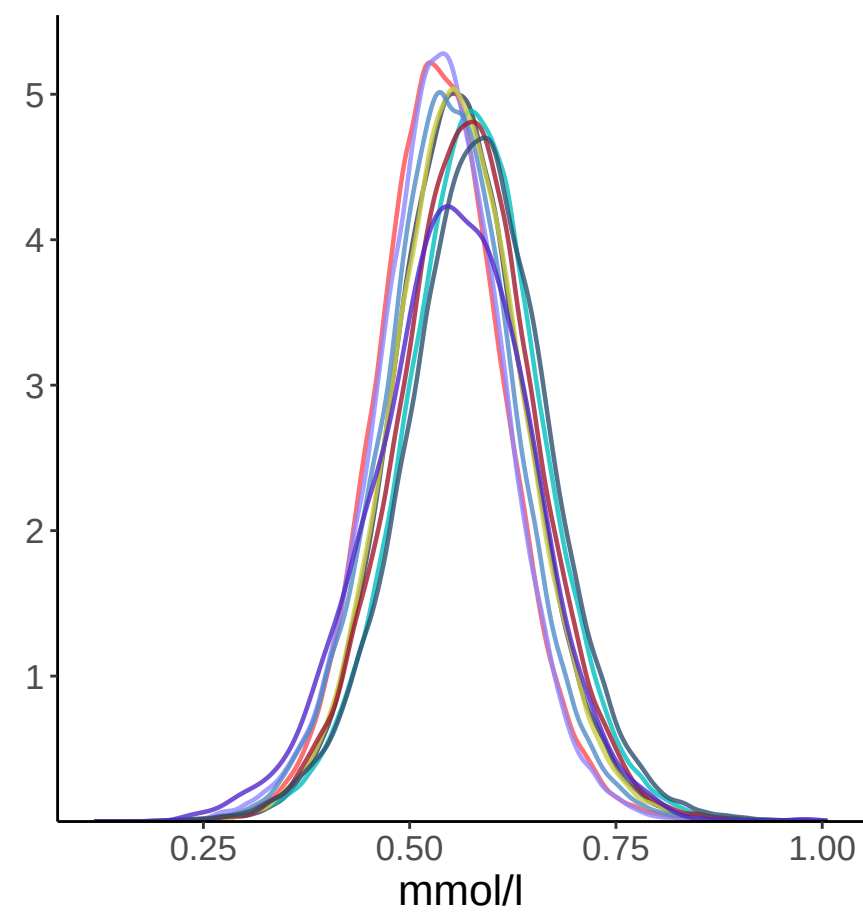
1 2 3 4 5
6 7 8 9



Gln

Spectrometer

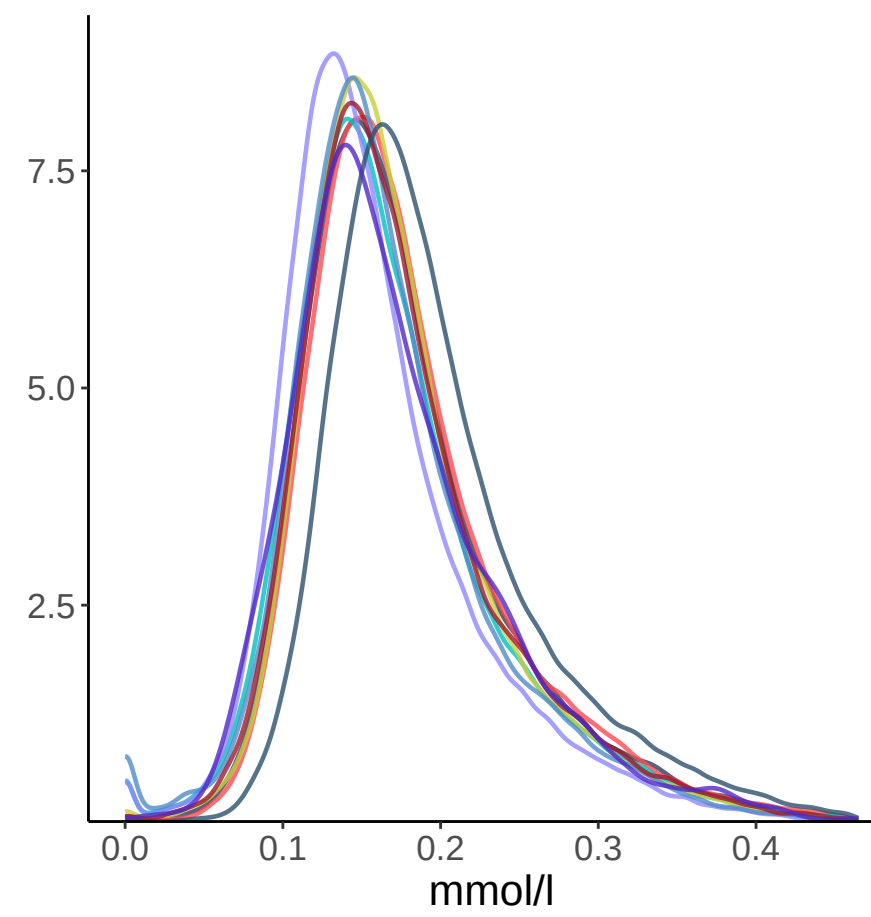
1 2 3 4 5
6 7 8 9



Gly

Spectrometer

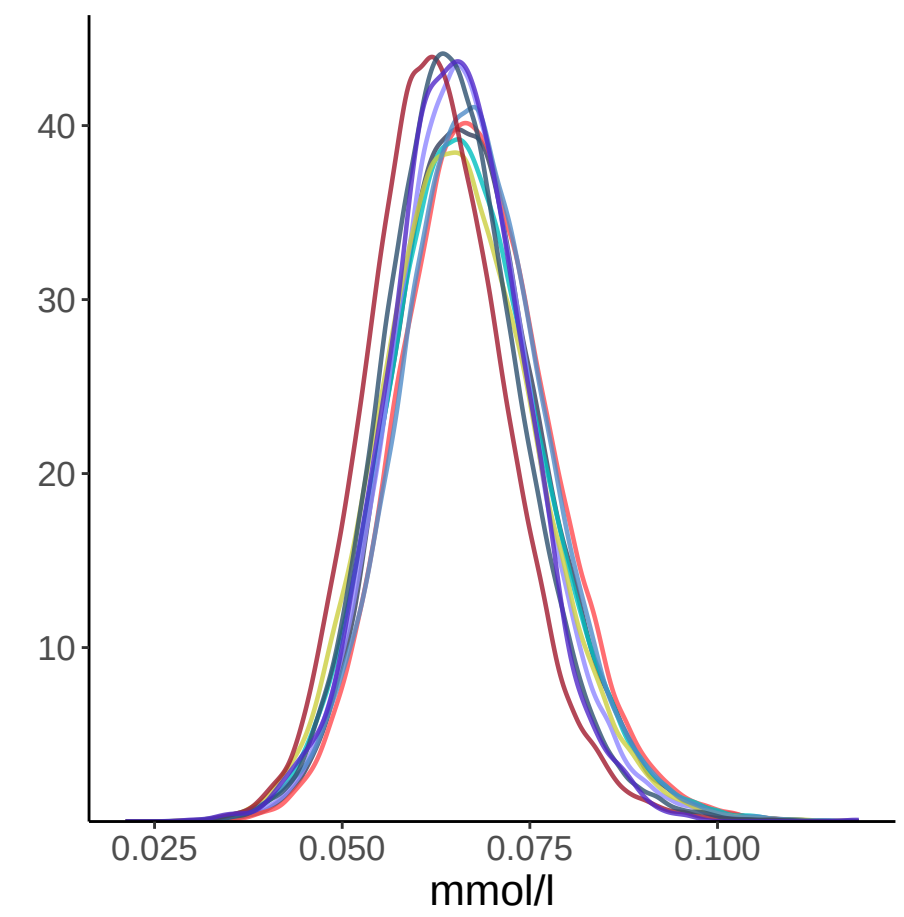
1 2 3 4 5
6 7 8 9



His

Spectrometer

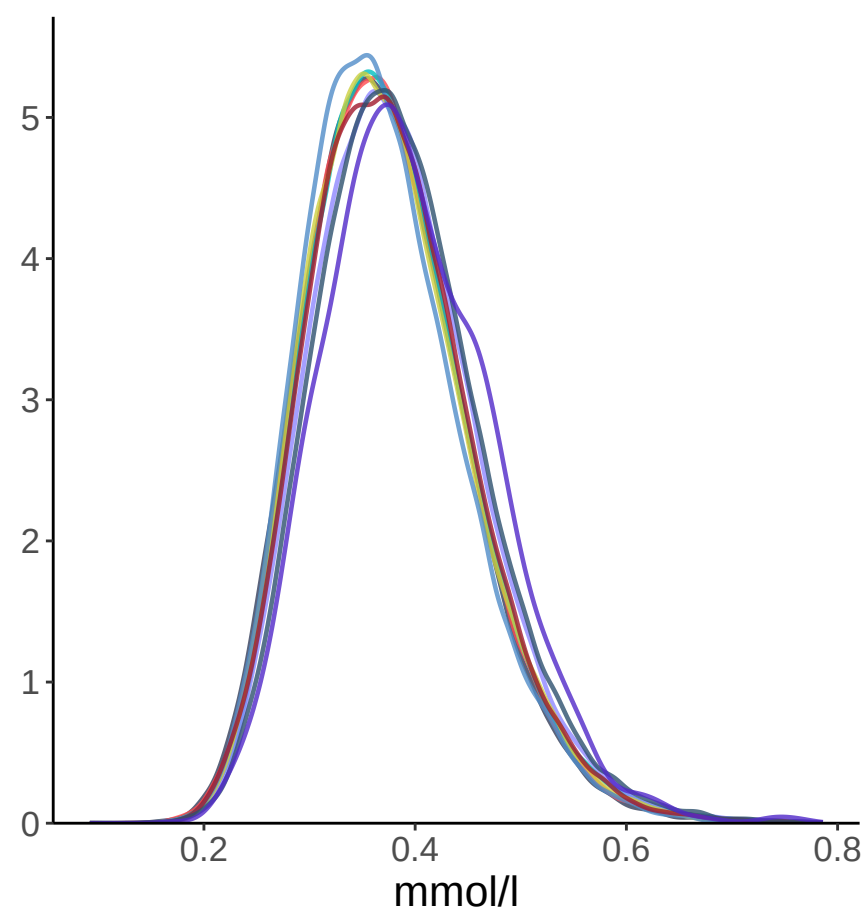
1 2 3 4 5
6 7 8 9



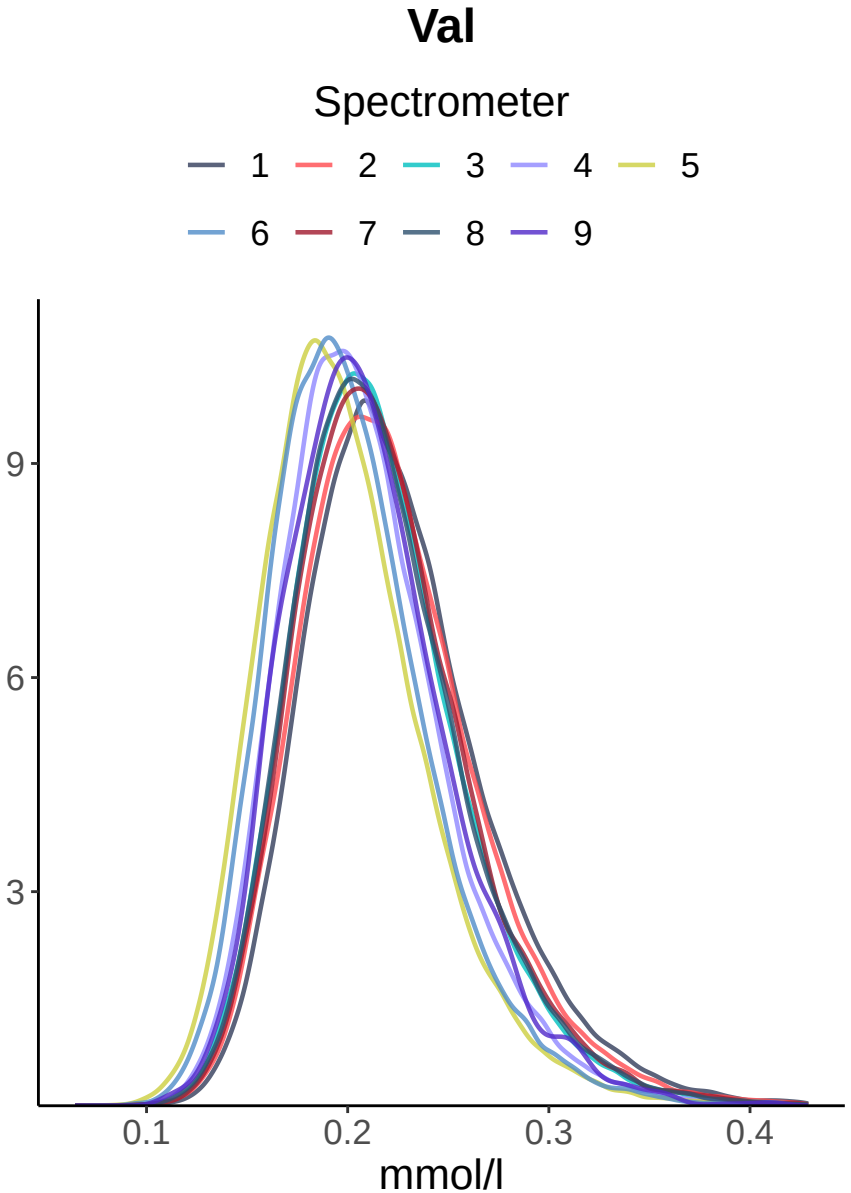
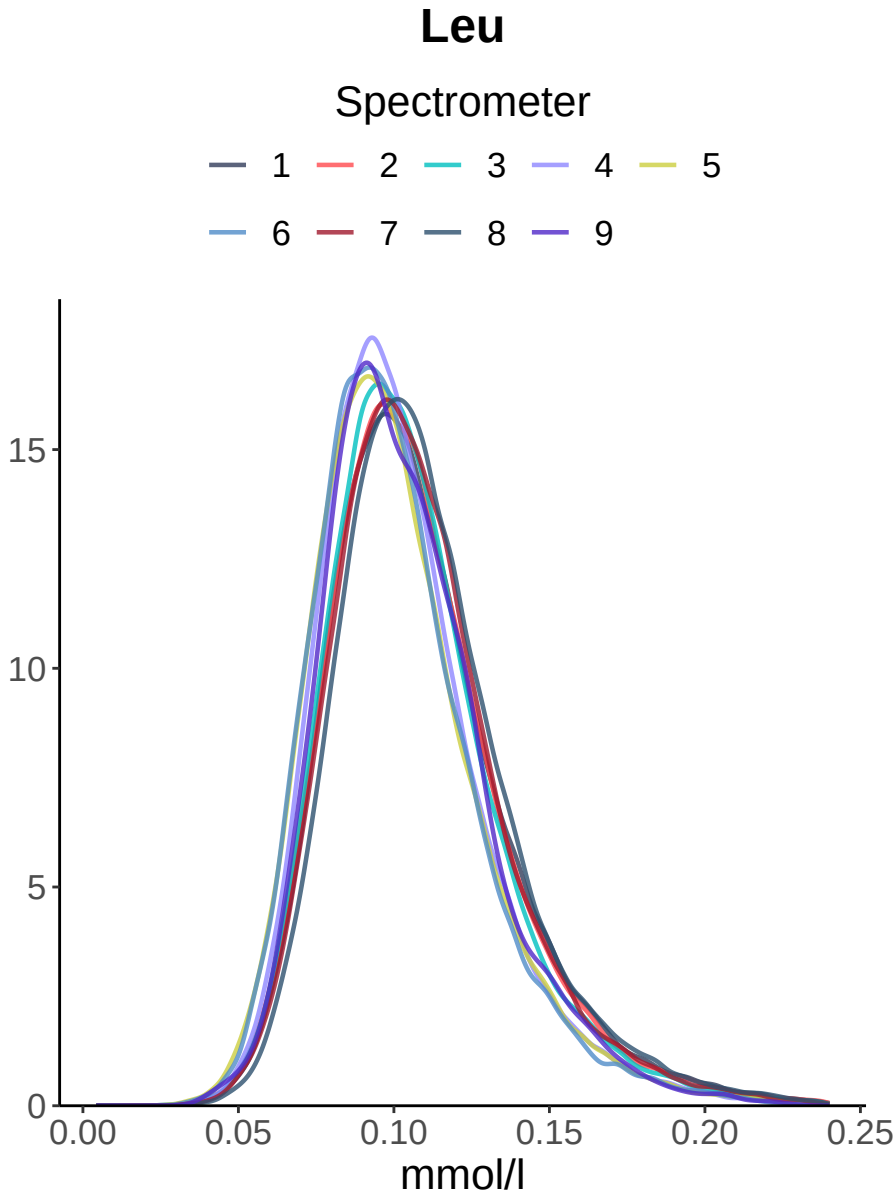
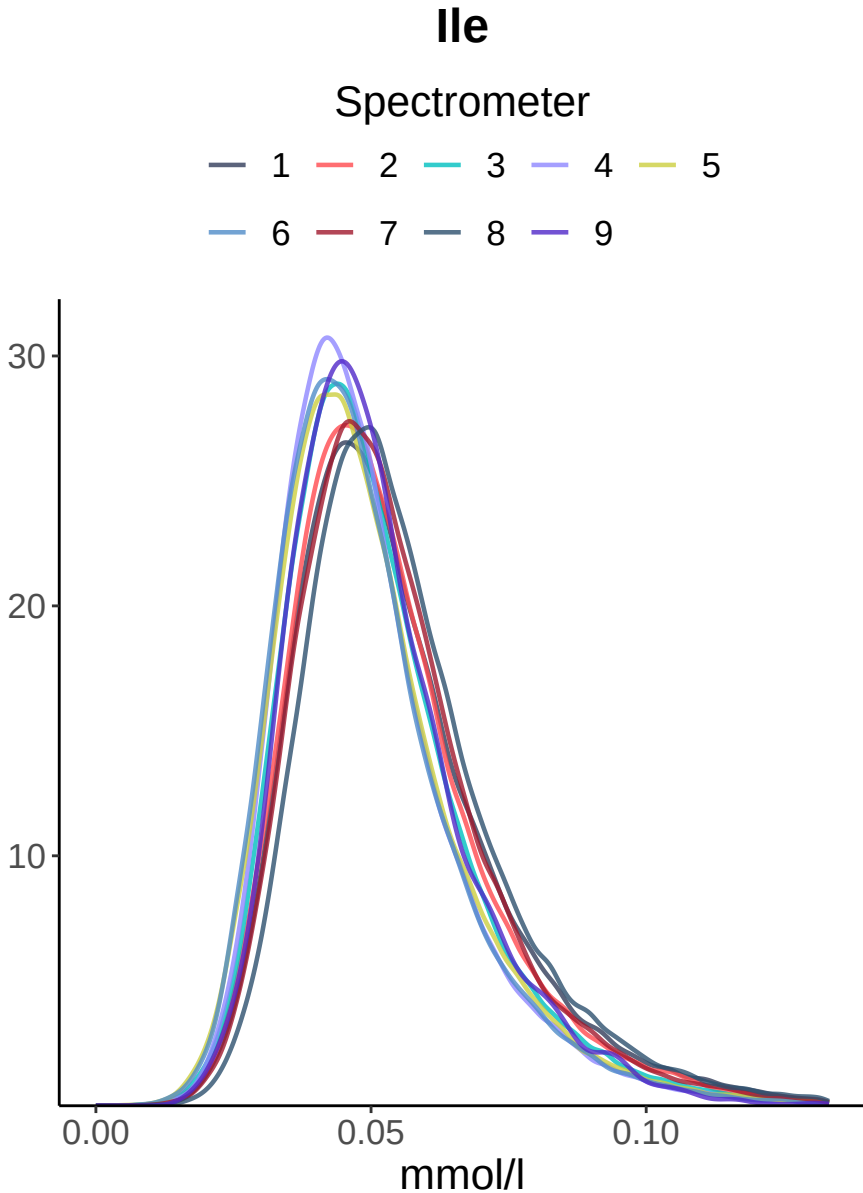
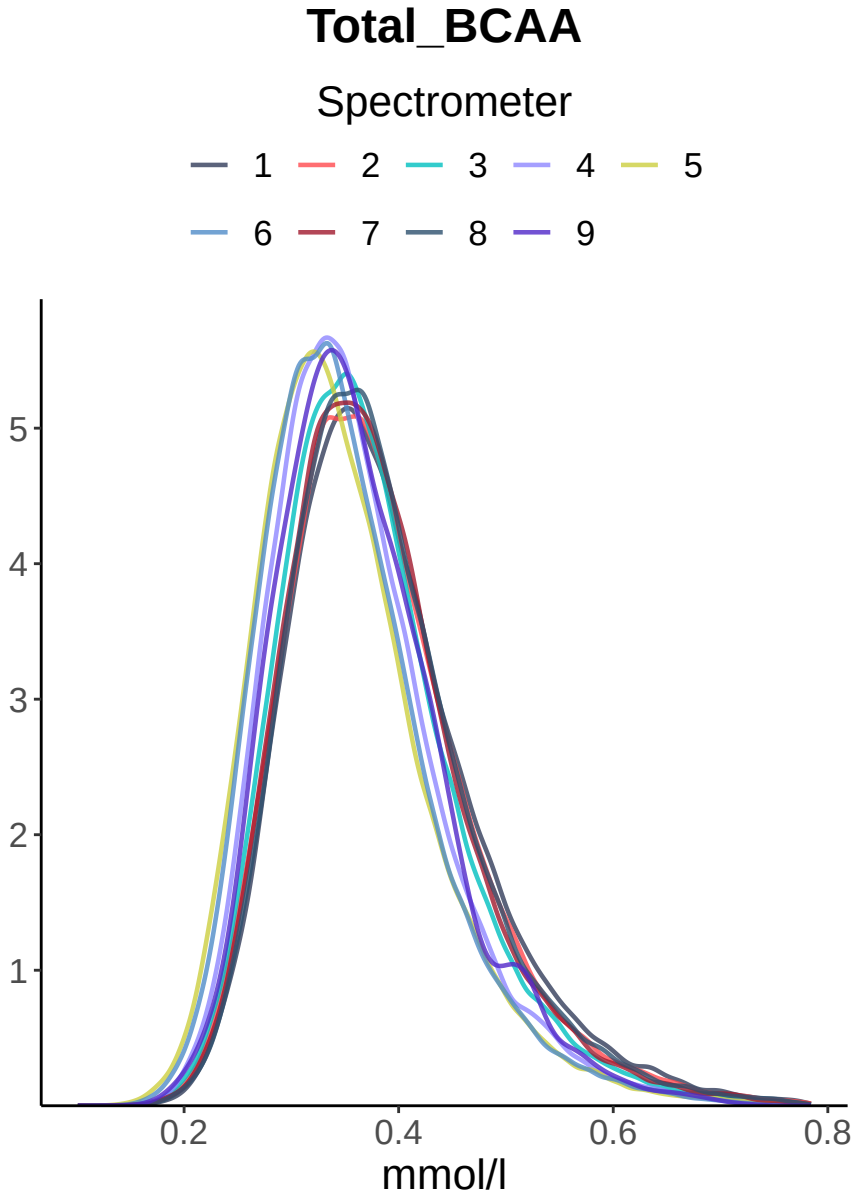
Ala_corrected

Spectrometer

1 2 3 4 5
6 7 8 9



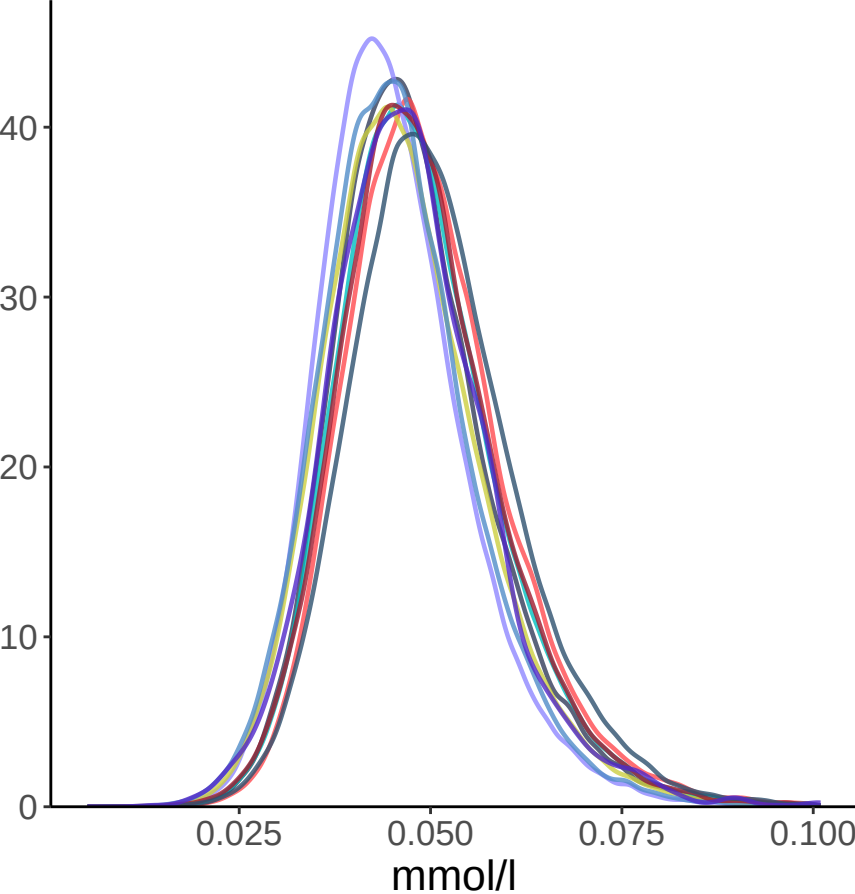
Branched-chain amino acids



Aromatic amino acids

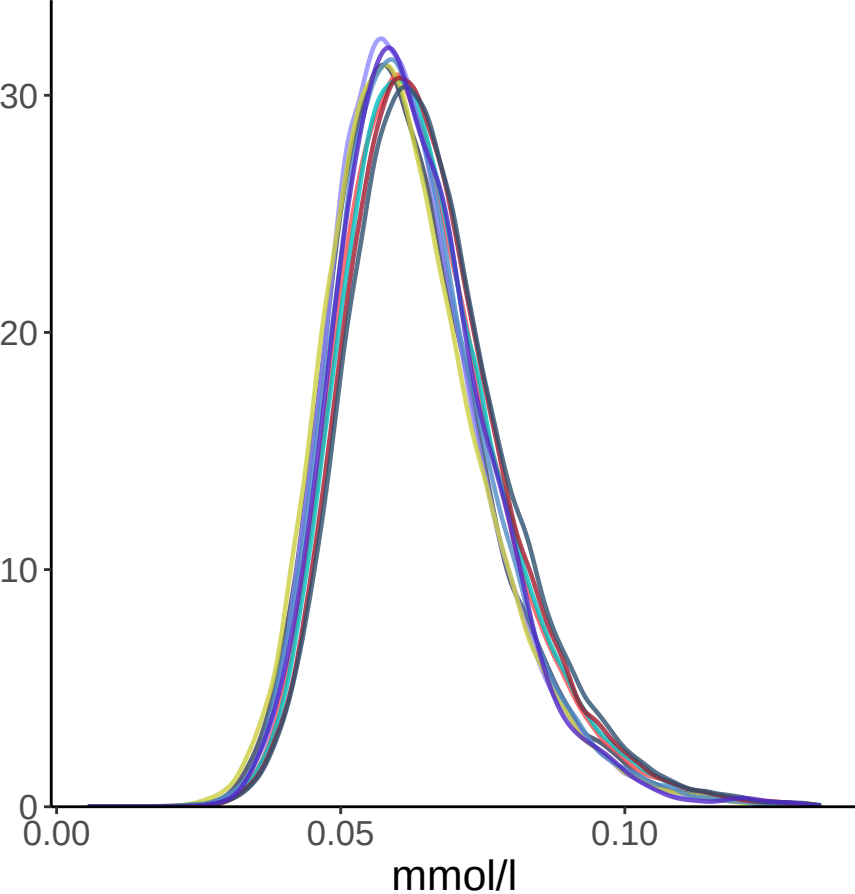
Phe

Spectrometer



Tyr

Spectrometer

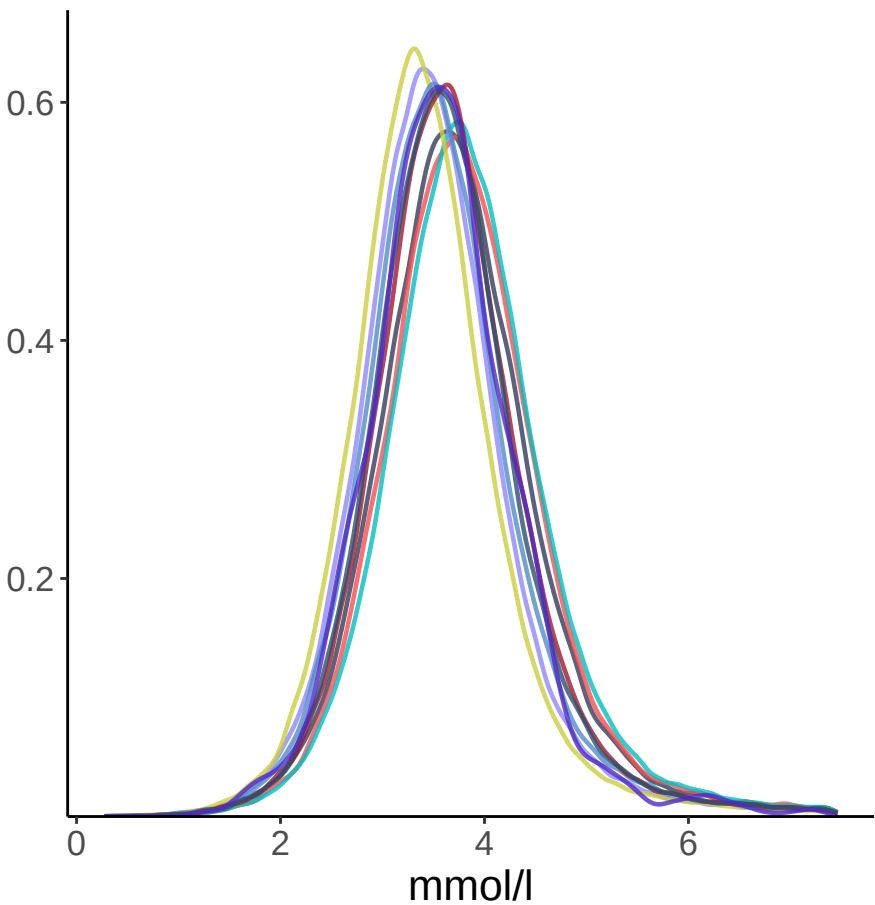


Glycolysis related metabolites

Glucose

Spectrometer

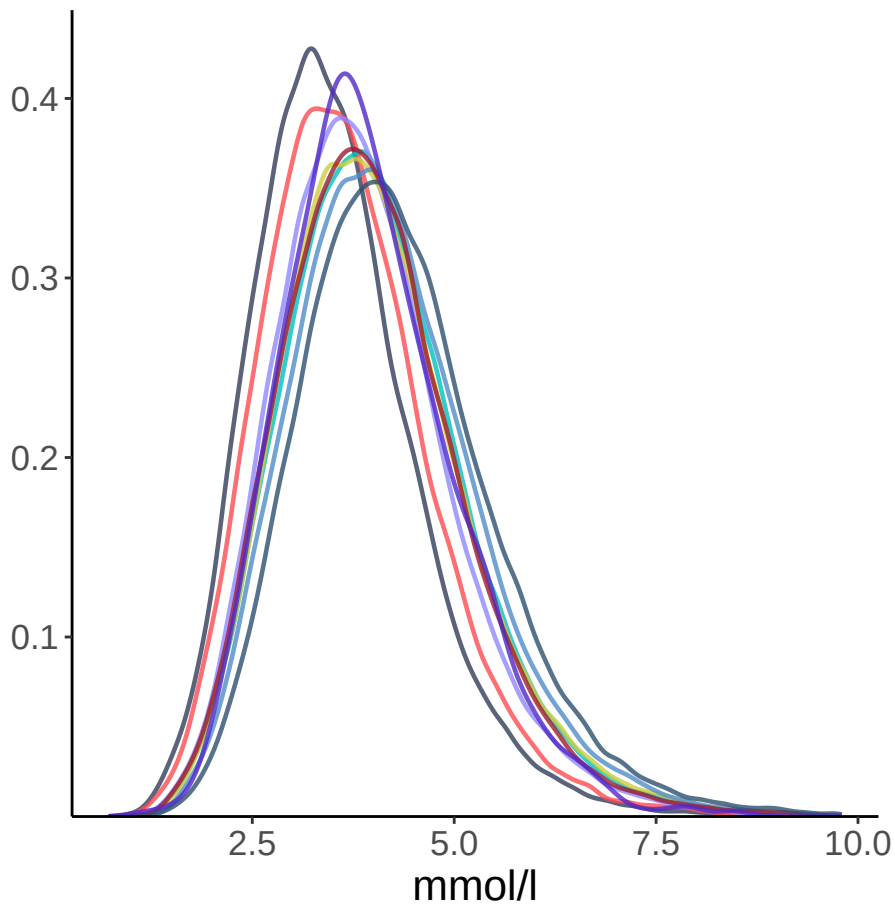
- 1 2 3 4 5
6 7 8 9



Lactate

Spectrometer

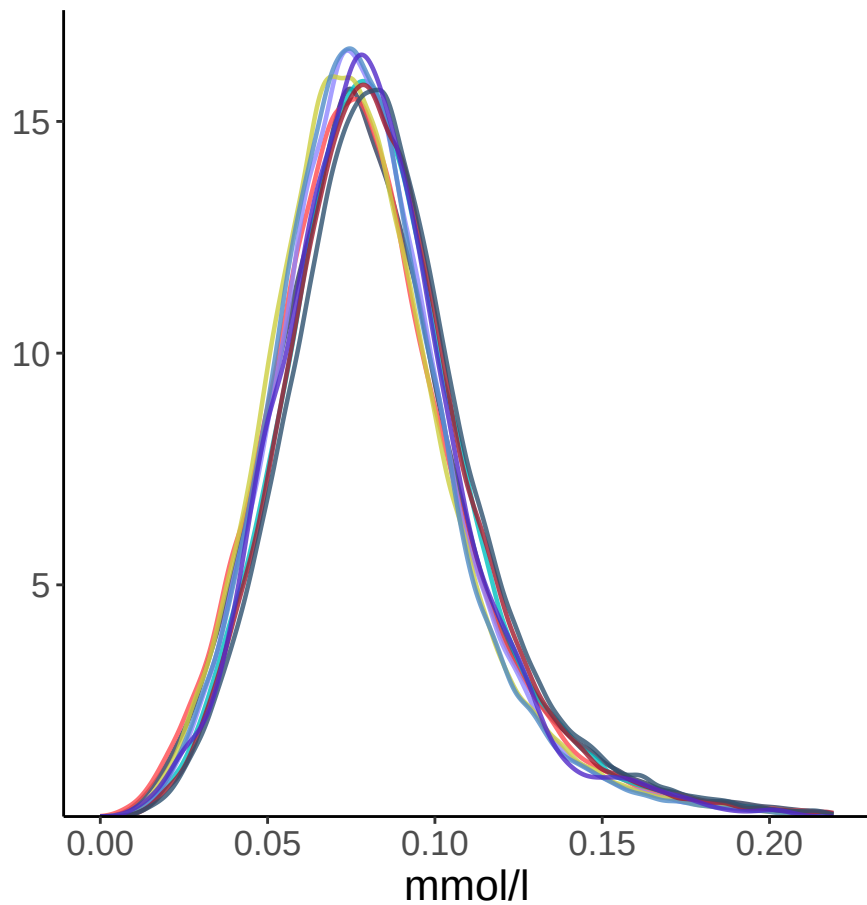
- 1 2 3 4 5
6 7 8 9



Pyruvate

Spectrometer

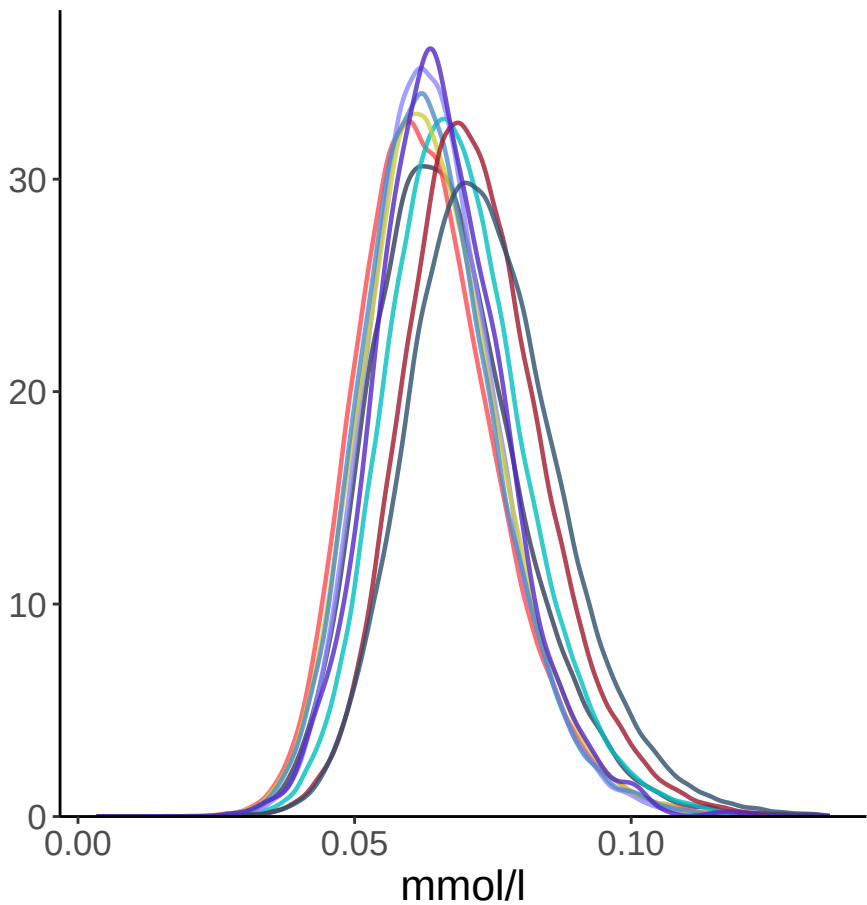
- 1 2 3 4 5
6 7 8 9



Citrate

Spectrometer

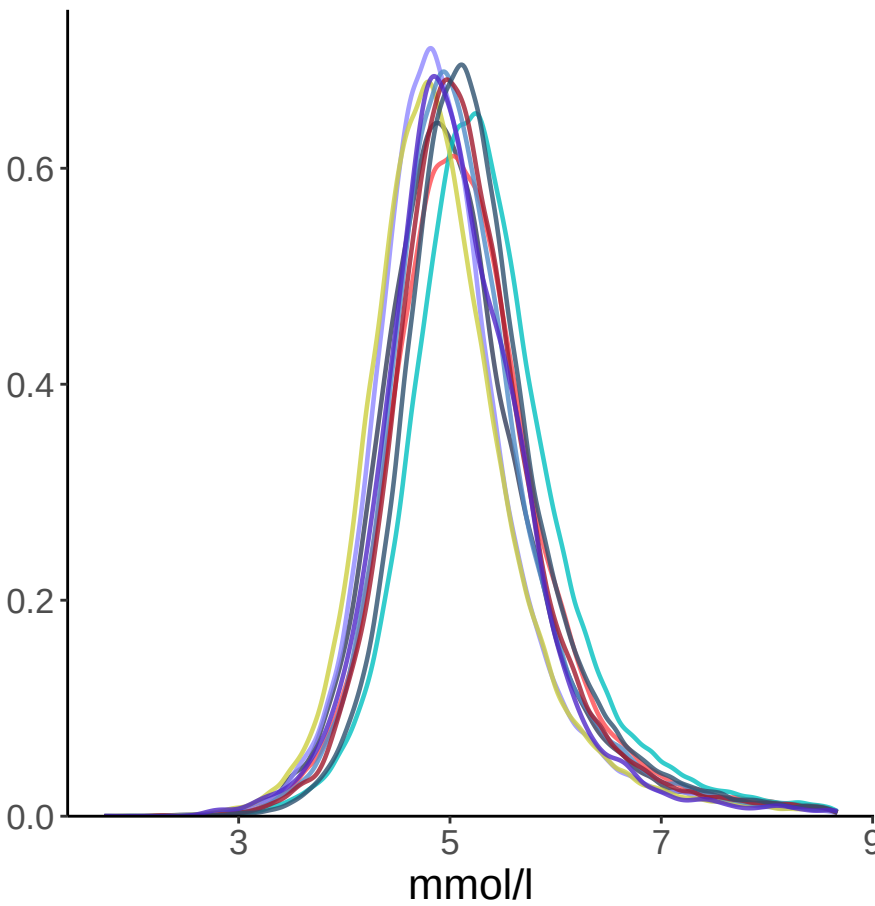
- 1 2 3 4 5
6 7 8 9



Glucose_Lactate

Spectrometer

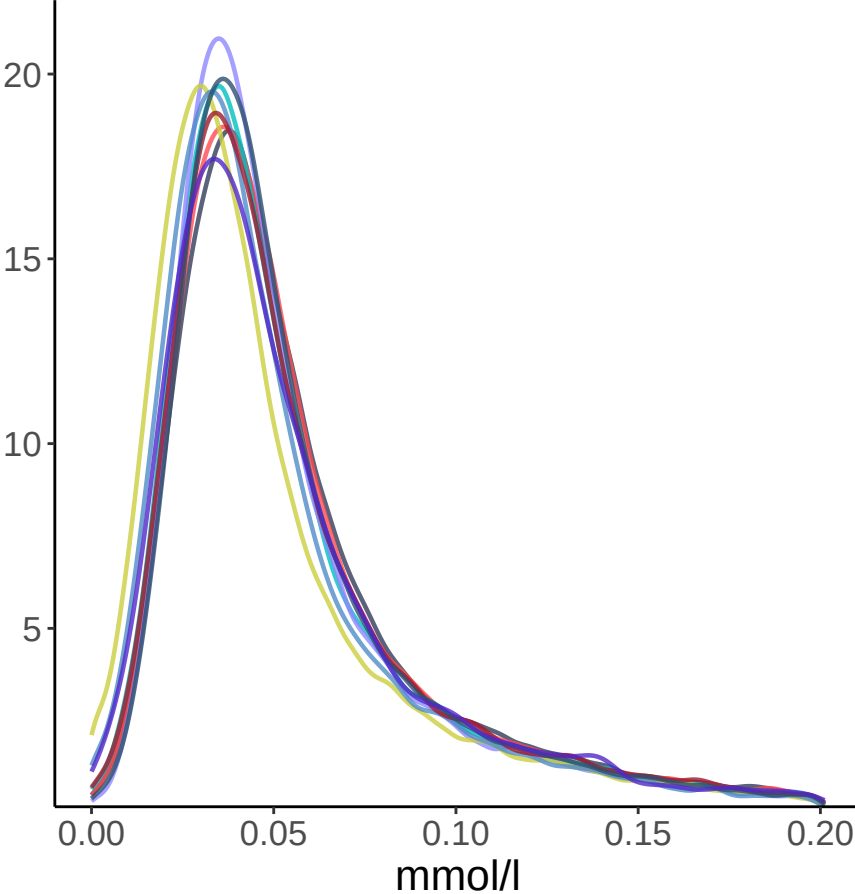
- 1 2 3 4 5
6 7 8 9



Ketone bodies

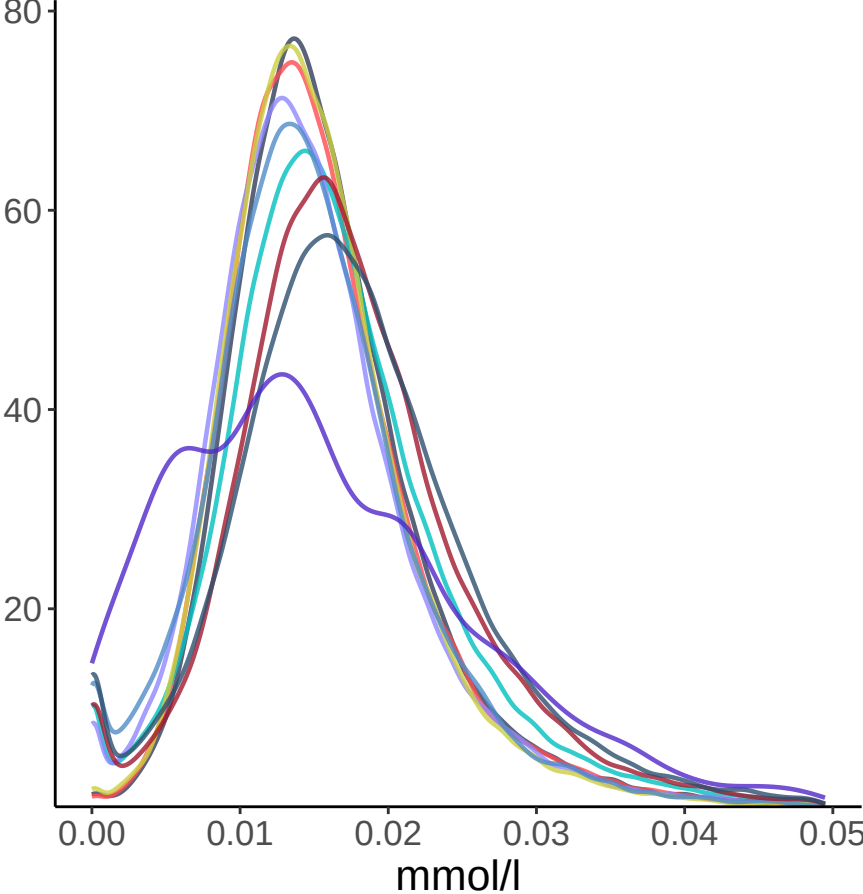
bOHbutyrate

Spectrometer



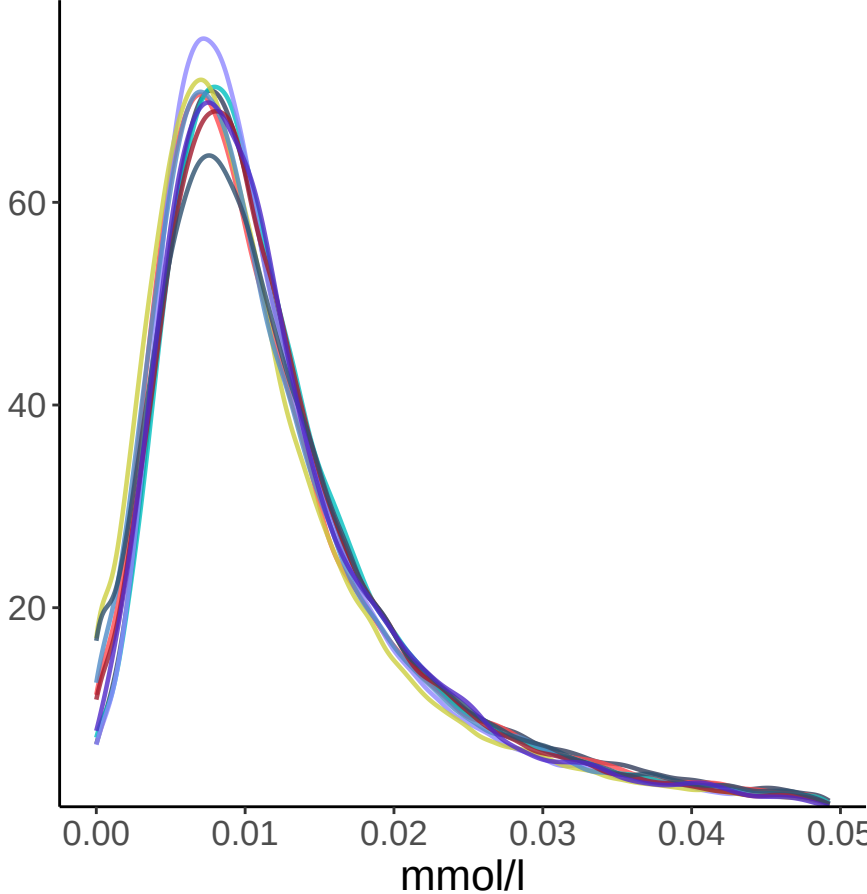
Acetate

Spectrometer



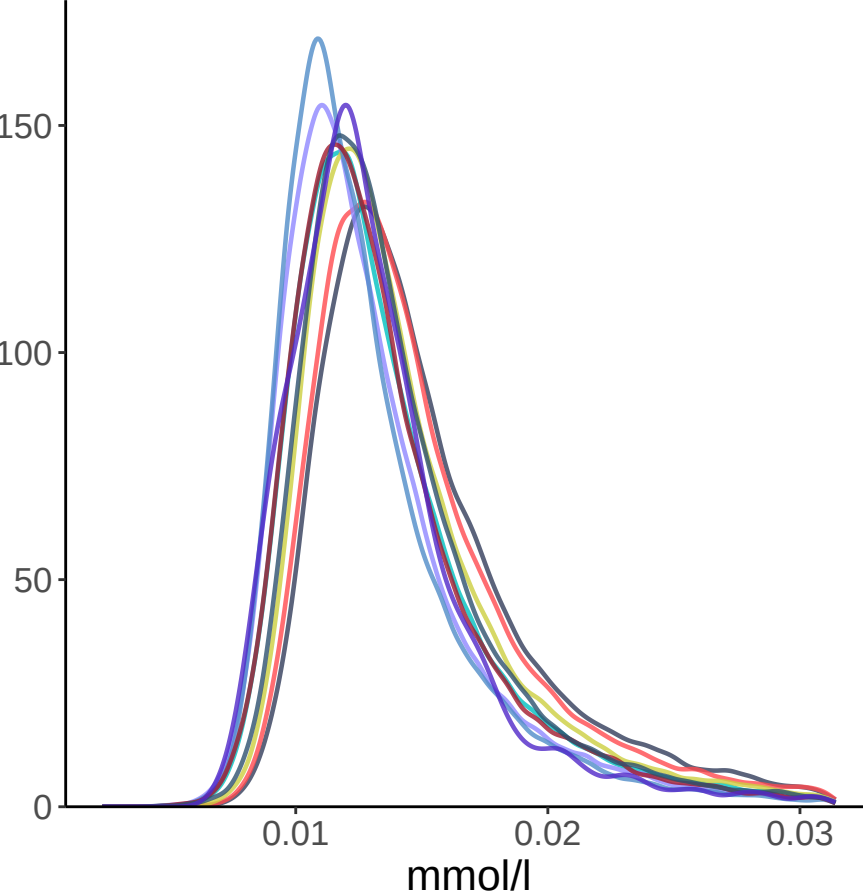
Acetoacetate

Spectrometer



Acetone

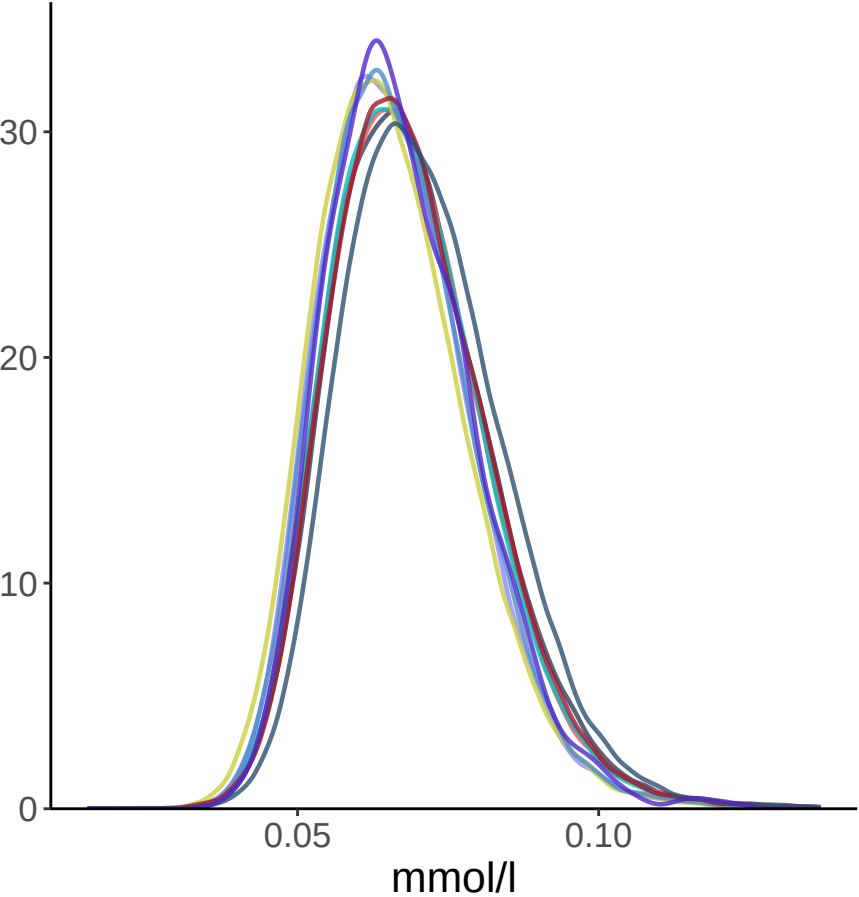
Spectrometer



Fluid balance

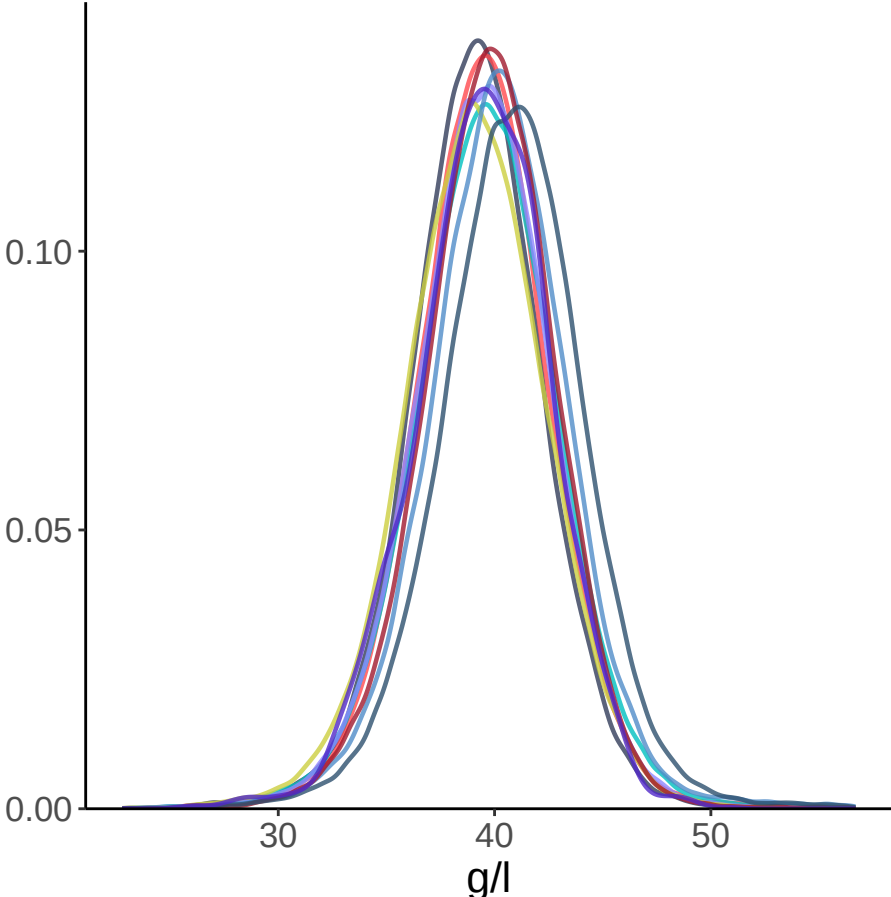
Creatinine

Spectrometer



Albumin

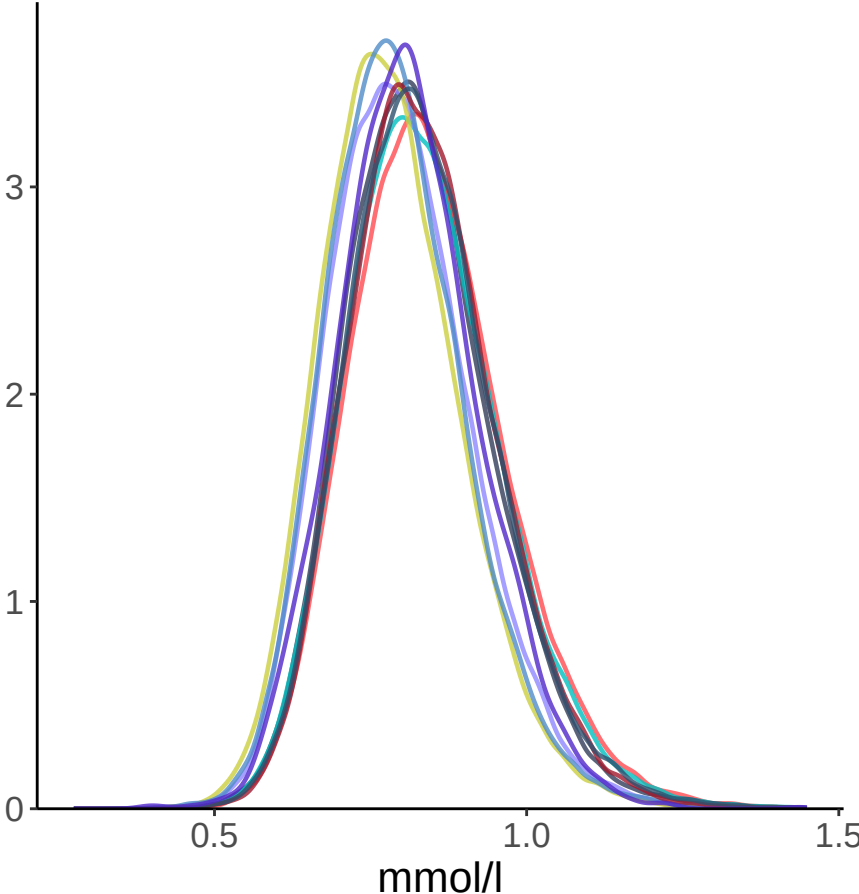
Spectrometer



Inflammation

GlycA

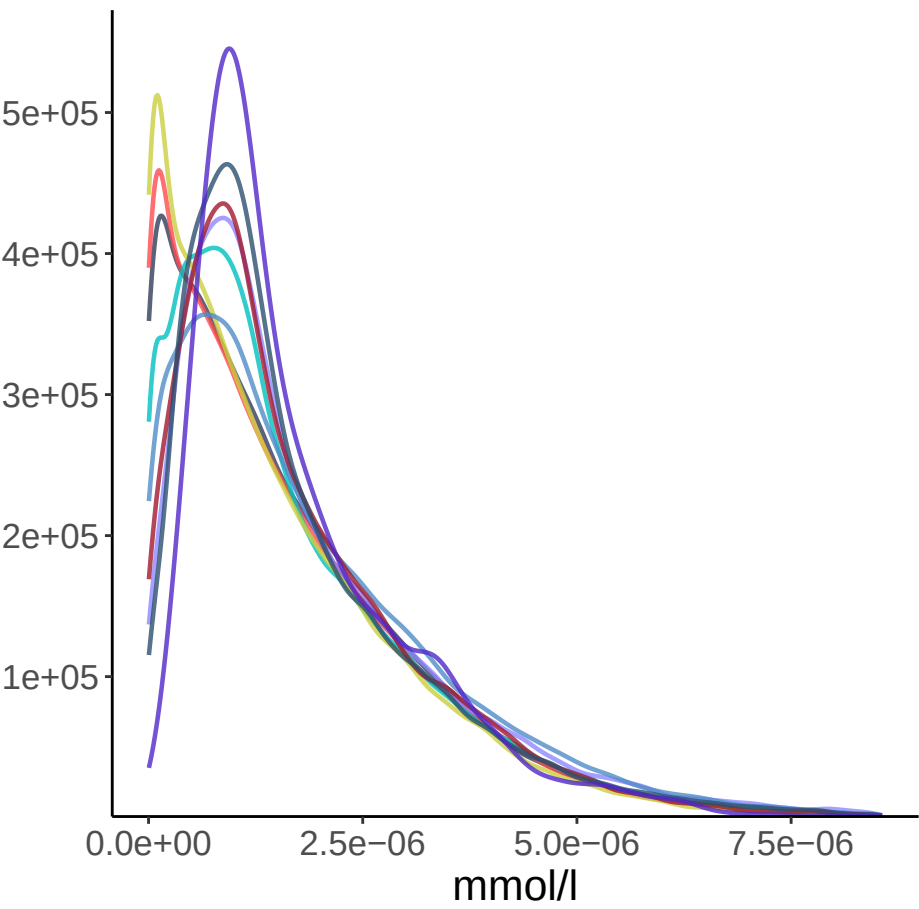
Spectrometer



Chylomicrons and extremely large VLDL (particle diameters from 75 nm upwards)

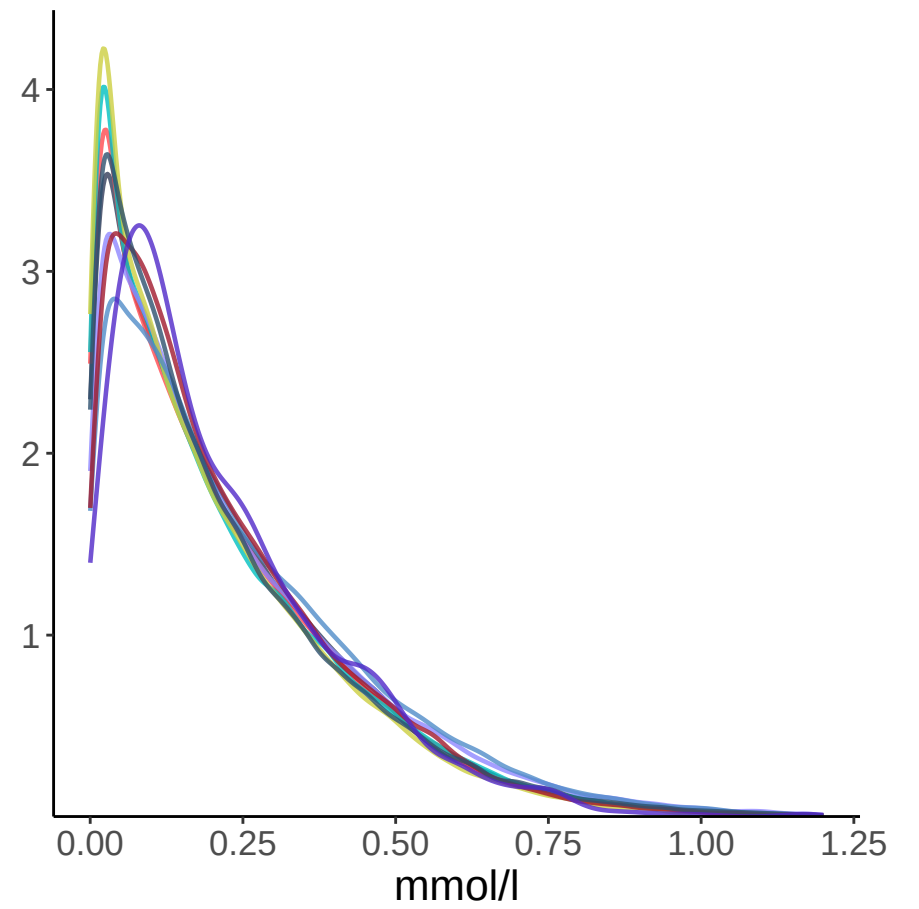
XXL_VLDL_P

Spectrometer



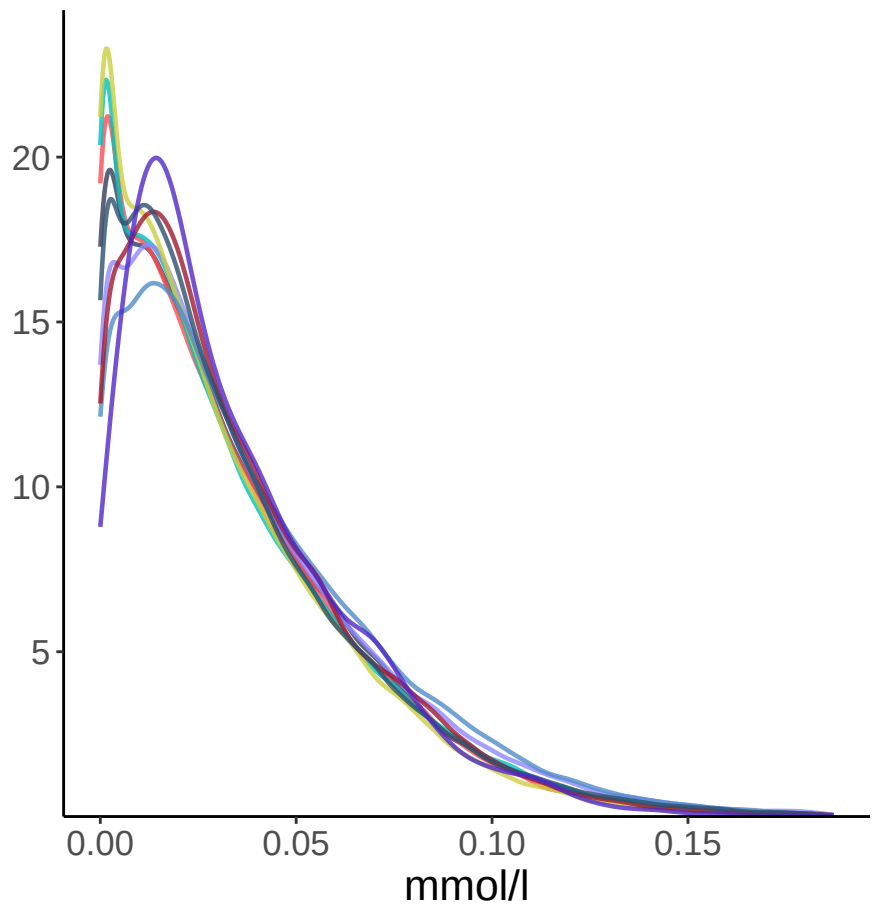
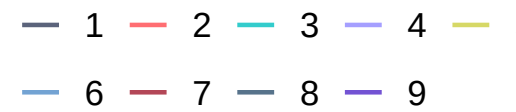
XXL_VLDL_L

Spectrometer



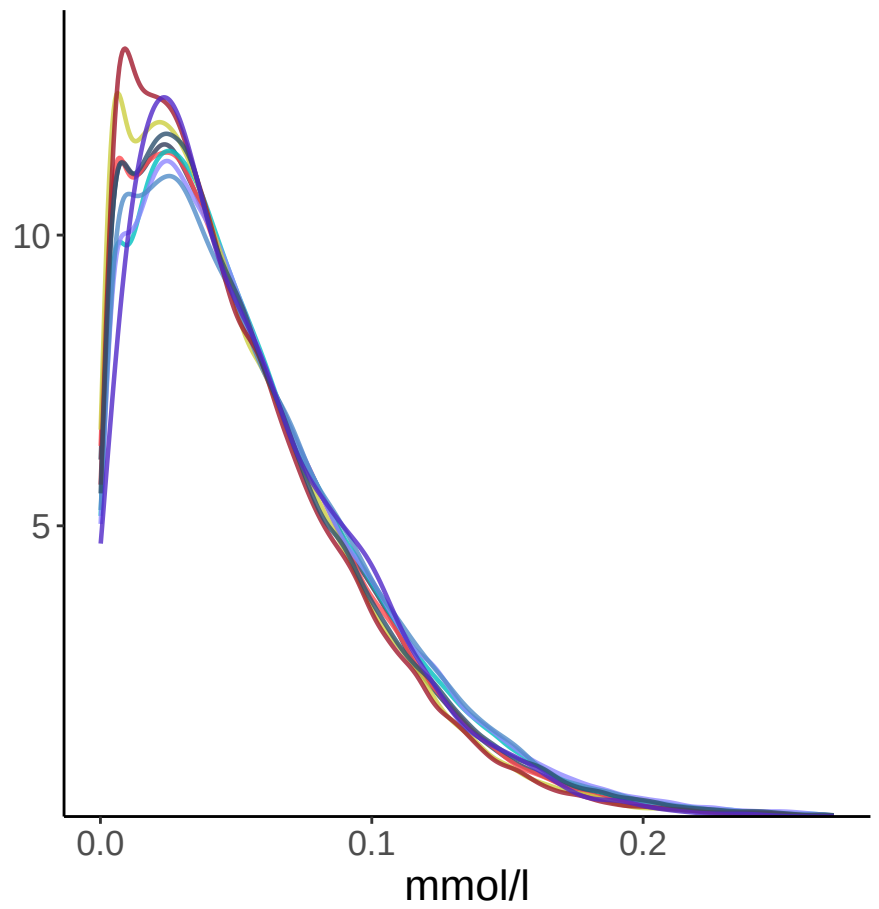
XXL_VLDL_PL

Spectrometer



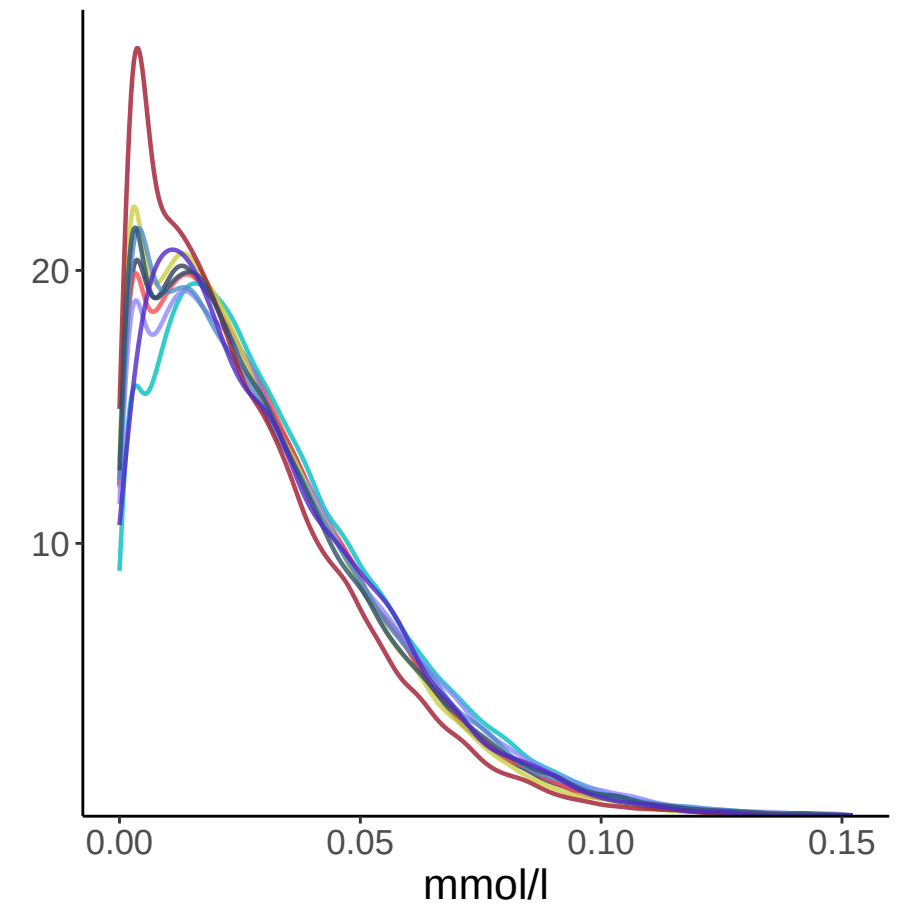
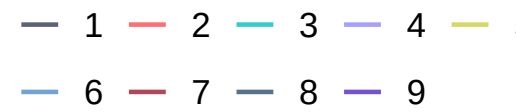
XXL_VLDL_C

Spectrometer



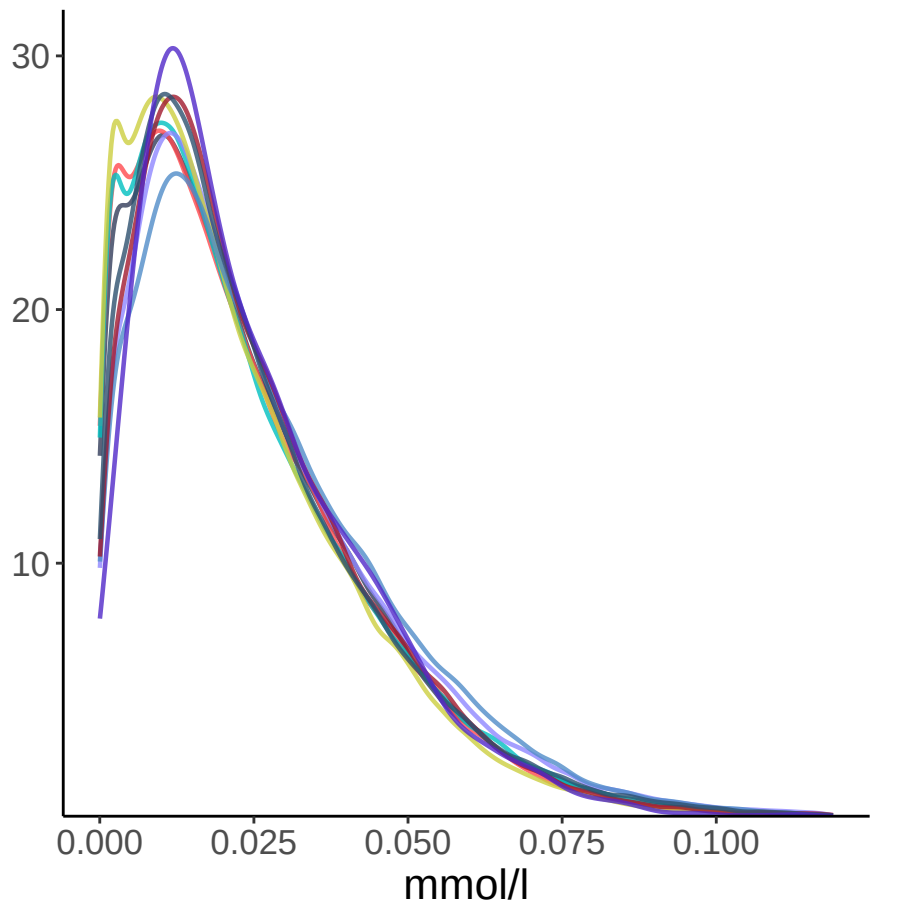
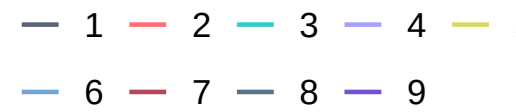
XXL_VLDL_CE

Spectrometer



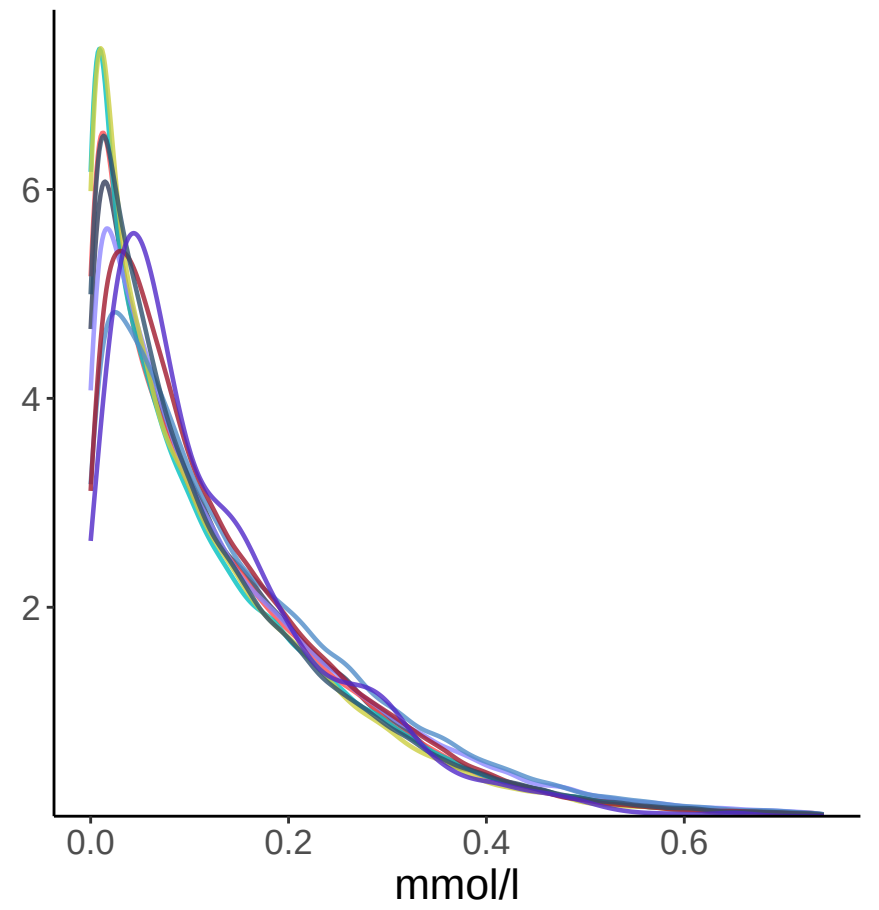
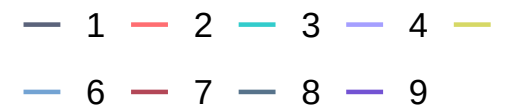
XXL_VLDL_FC

Spectrometer



XXL_VLDL_TG

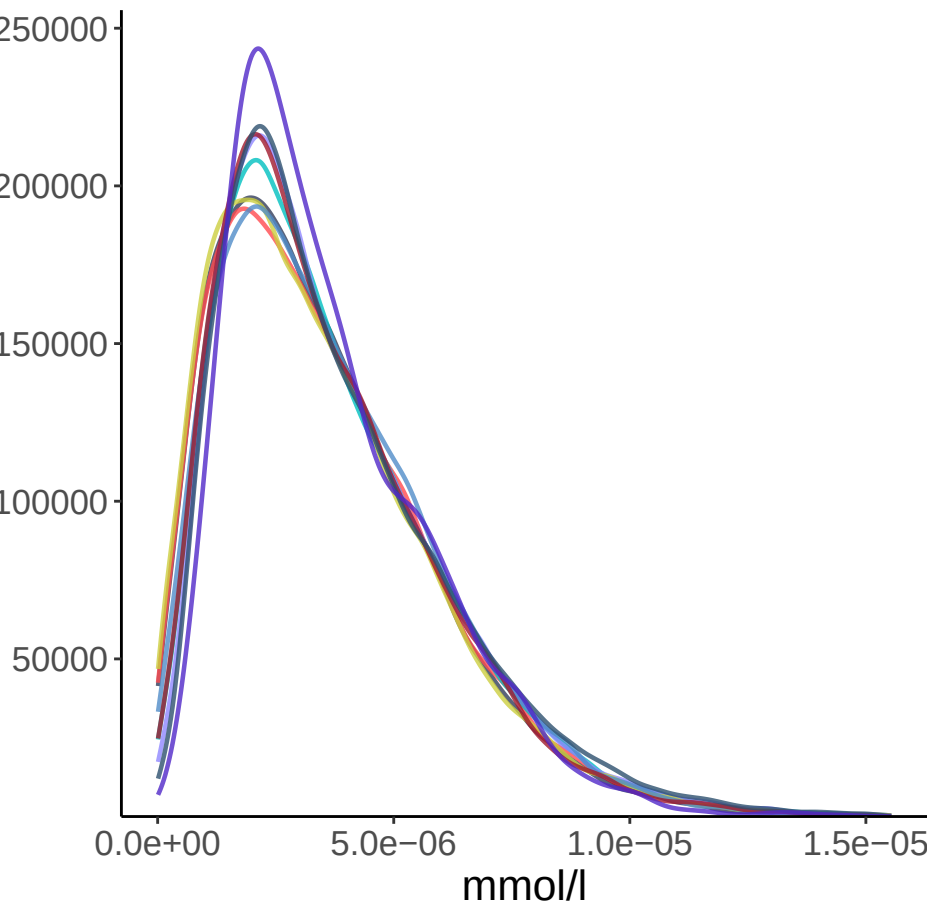
Spectrometer



Very large VLDL (average diameter 64 nm)

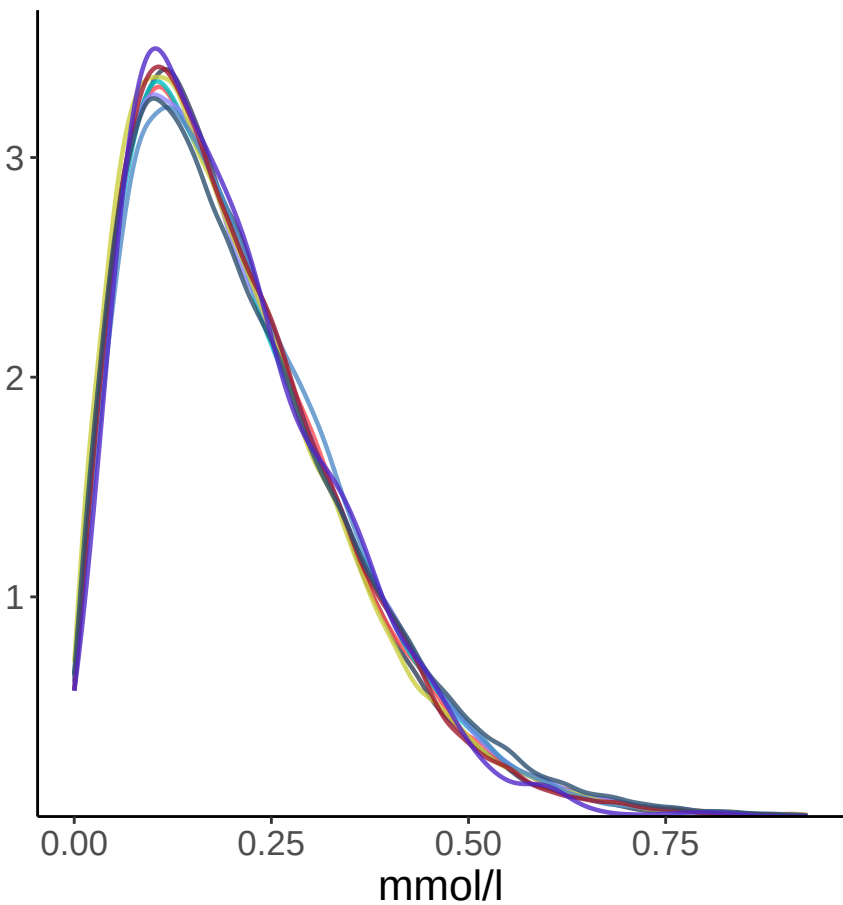
XL_VLDL_P

Spectrometer



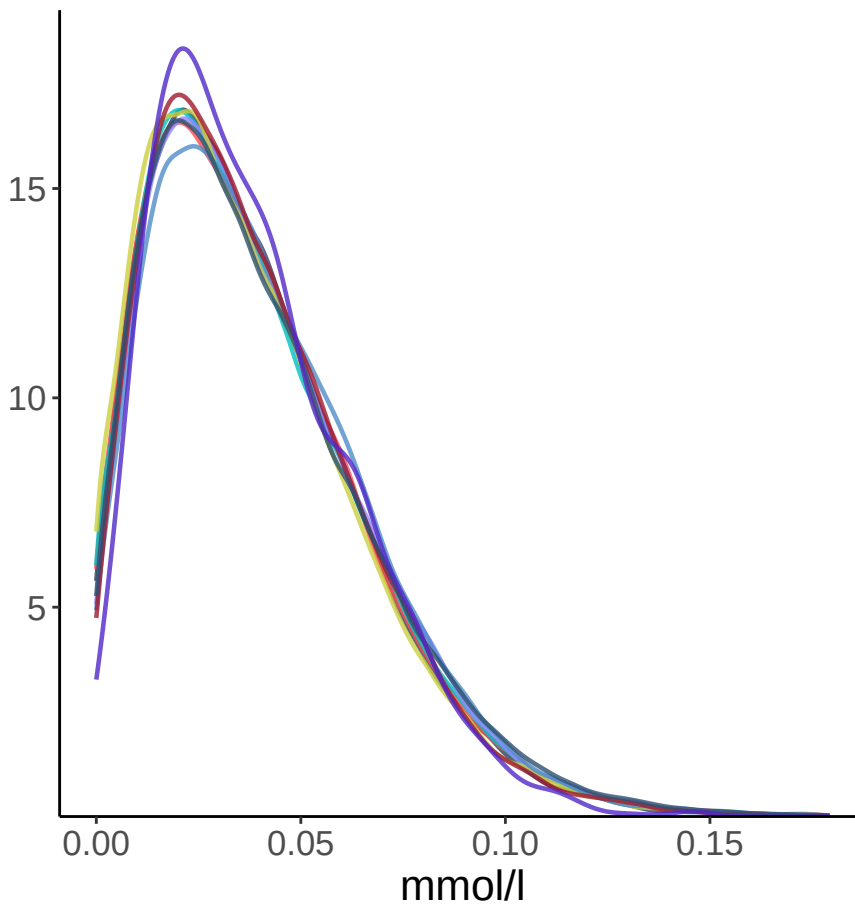
XL_VLDL_L

Spectrometer



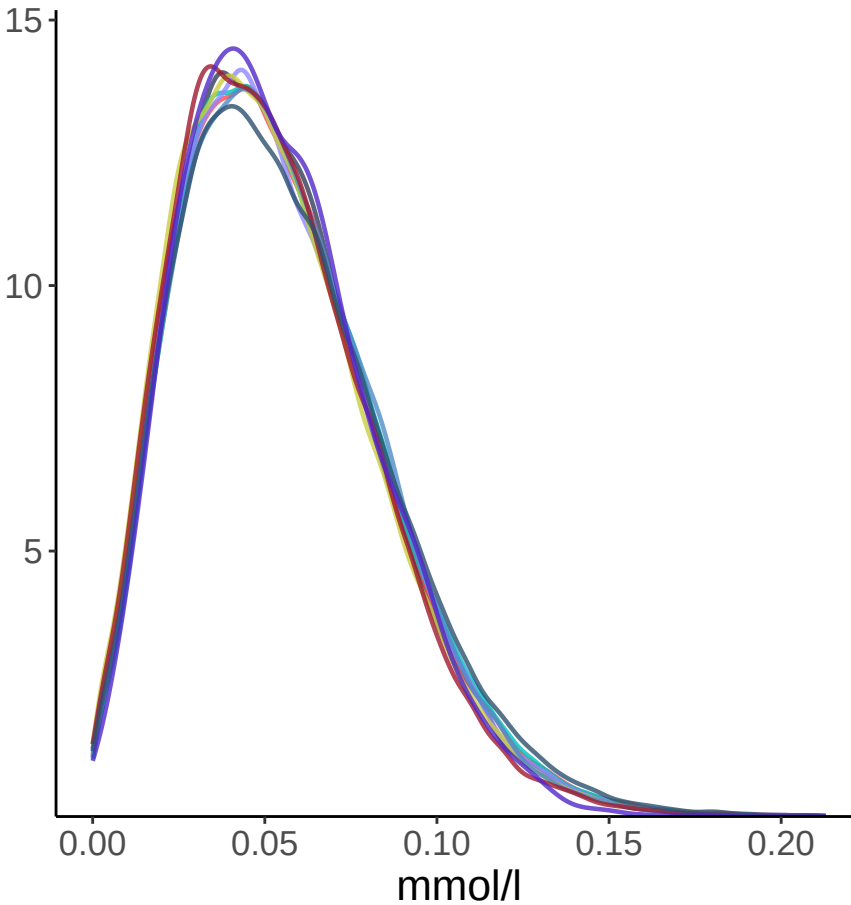
XL_VLDL_PL

Spectrometer



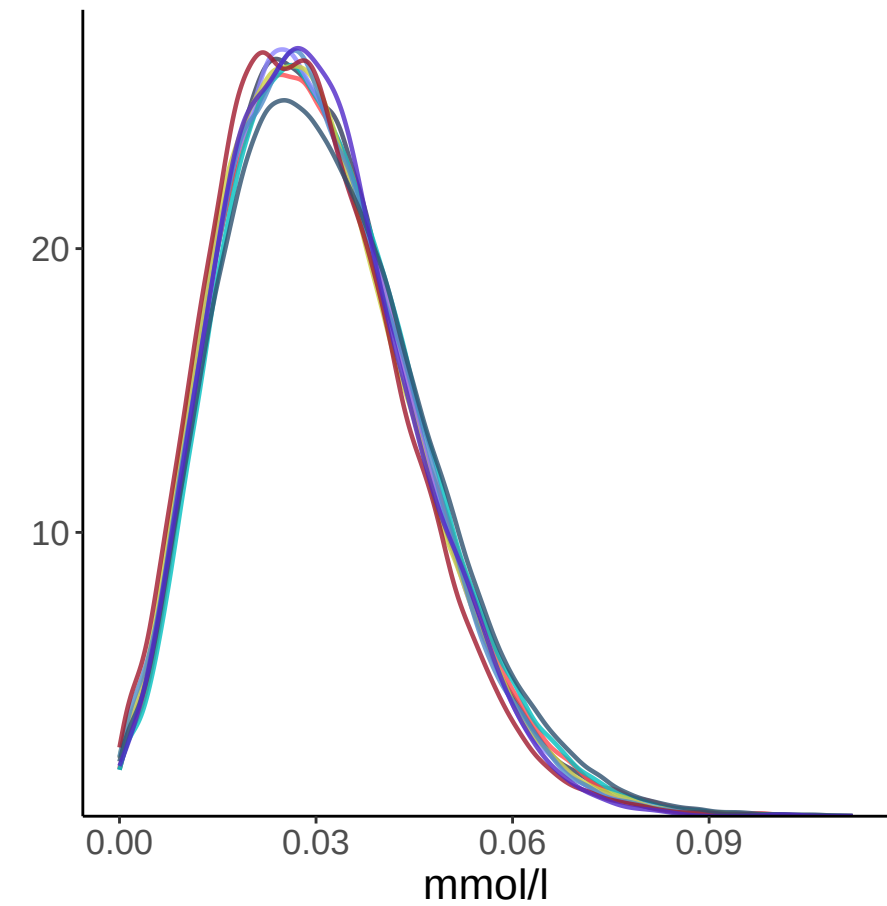
XL_VLDL_C

Spectrometer



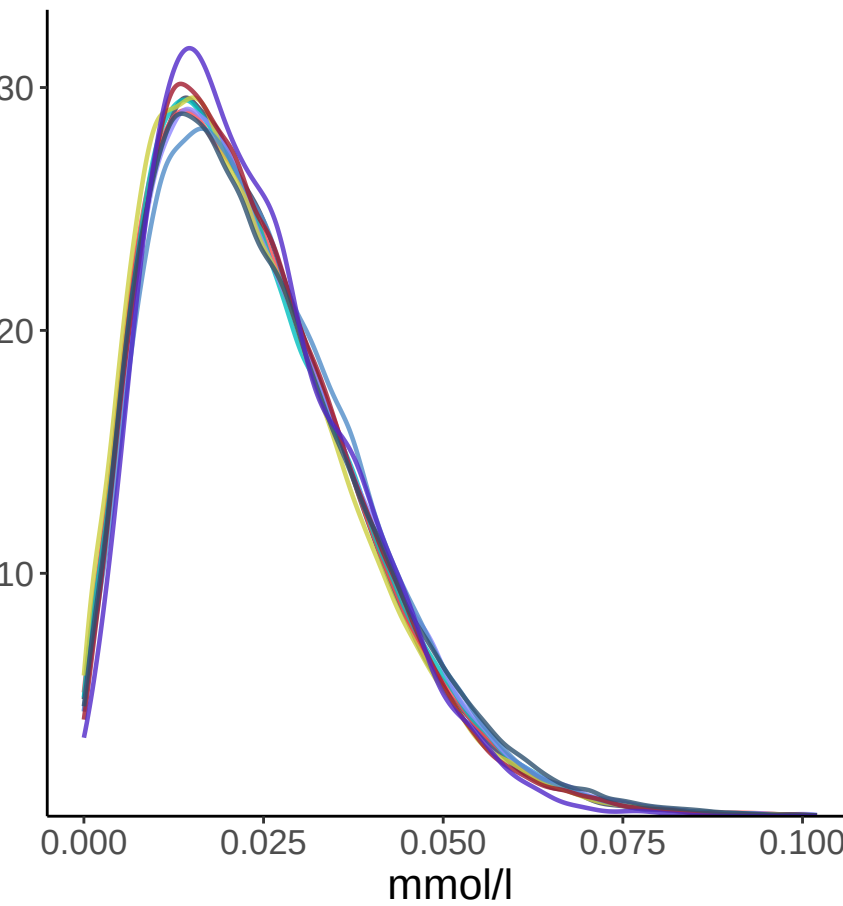
XL_VLDL_CE

Spectrometer



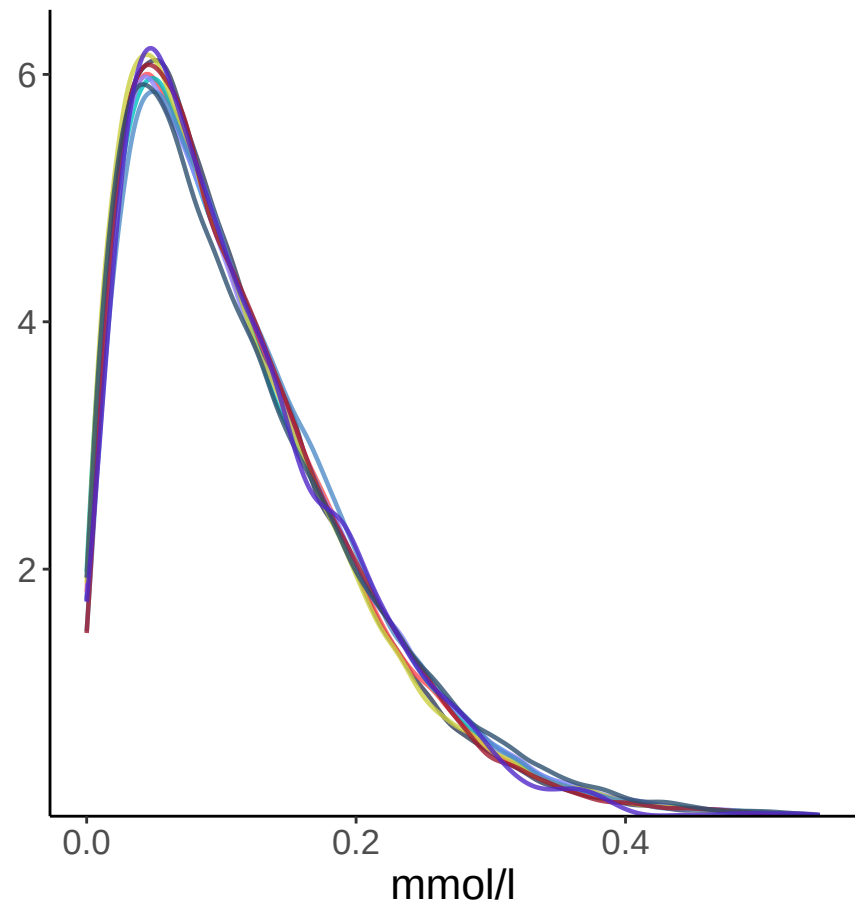
XL_VLDL_FC

Spectrometer



XL_VLDL_TG

Spectrometer

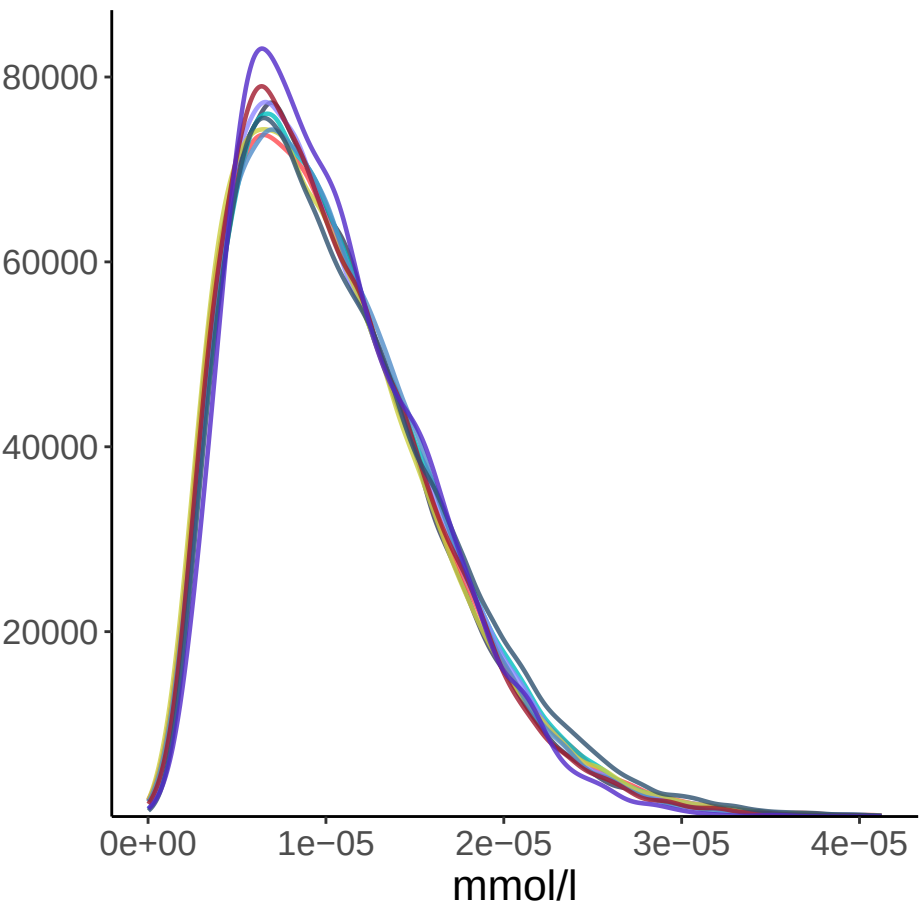


Large VLDL (average diameter 53.6 nm)

L_VLDL_P

Spectrometer

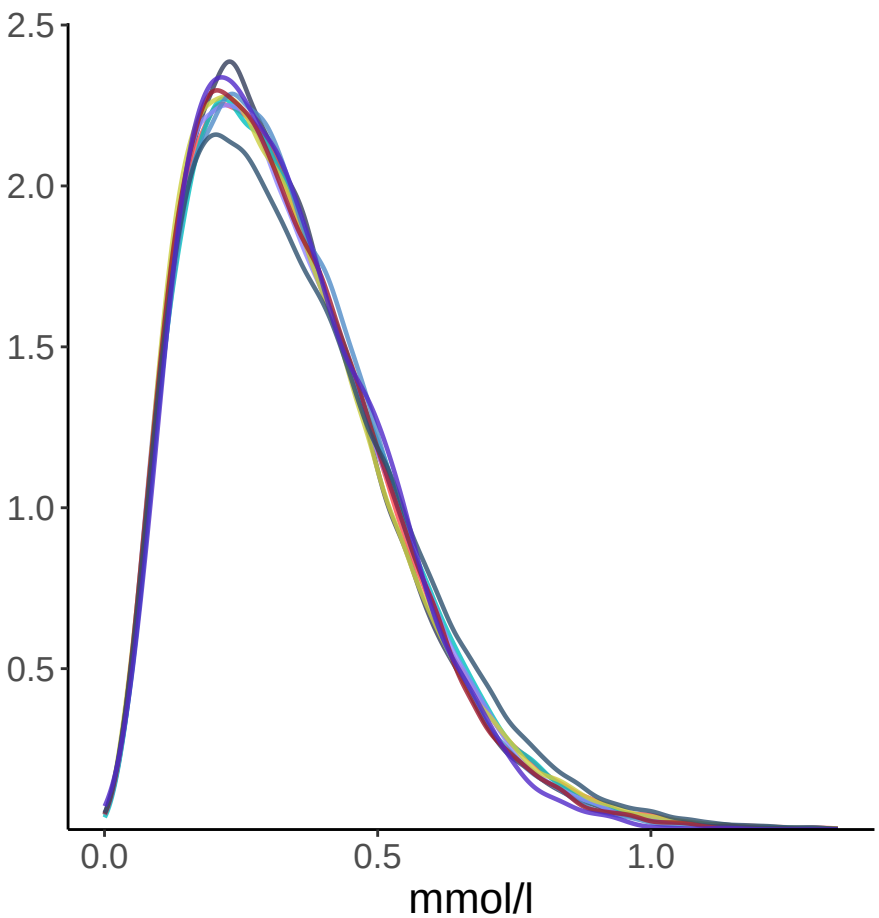
1 2 3 4 5
6 7 8 9



L_VLDL_L

Spectrometer

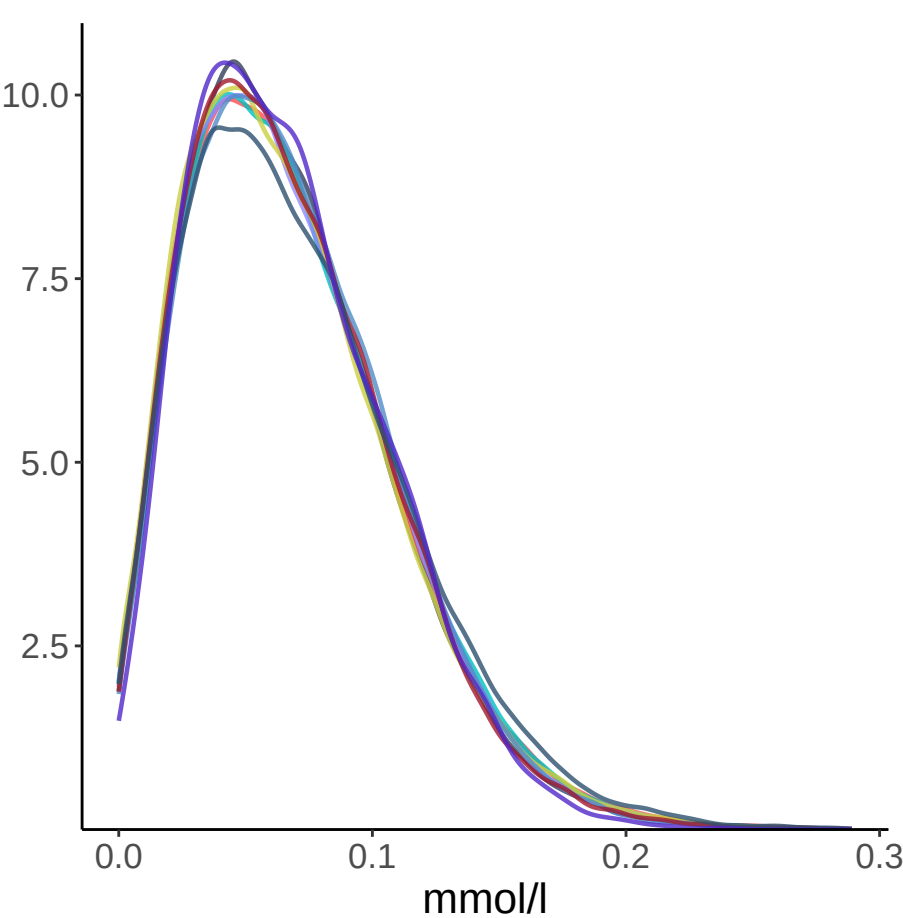
1 2 3 4 5
6 7 8 9



L_VLDL_PL

Spectrometer

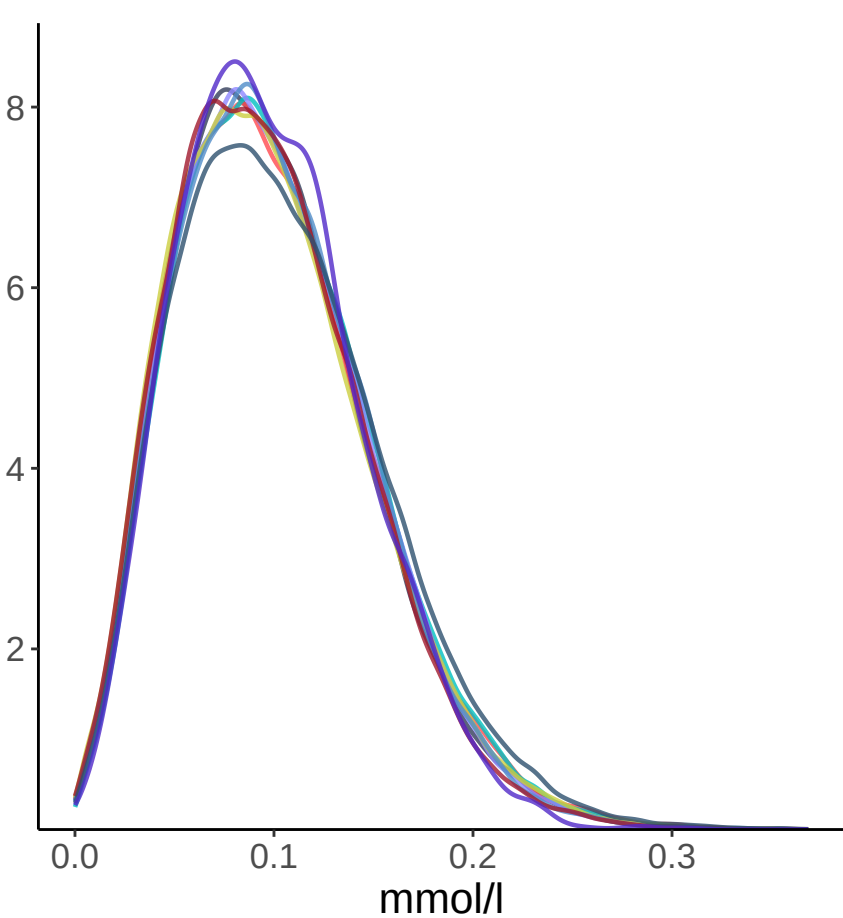
1 2 3 4 5
6 7 8 9



L_VLDL_C

Spectrometer

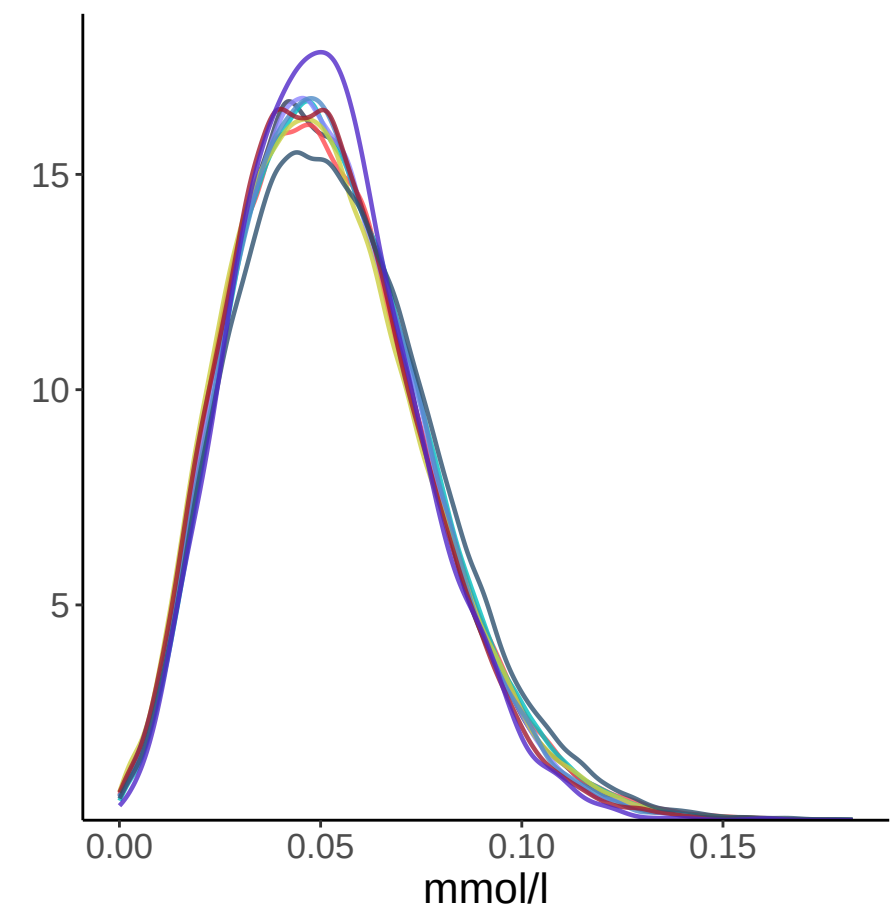
1 2 3 4 5
6 7 8 9



L_VLDL_CE

Spectrometer

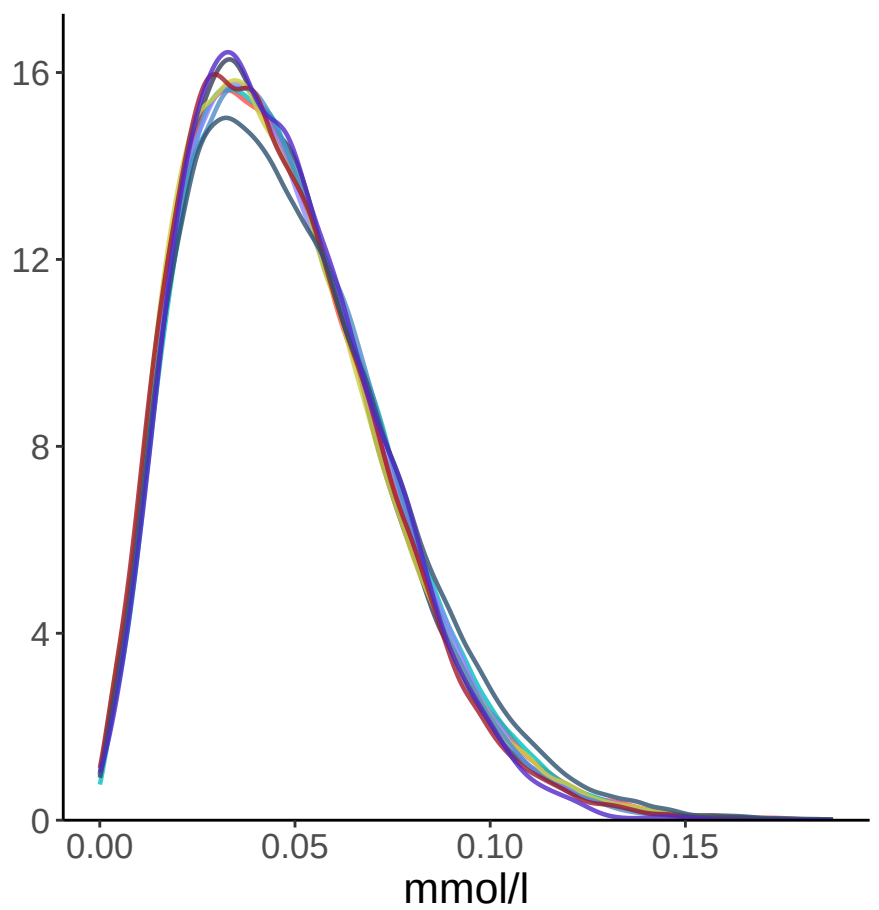
1 2 3 4 5
6 7 8 9



L_VLDL_FC

Spectrometer

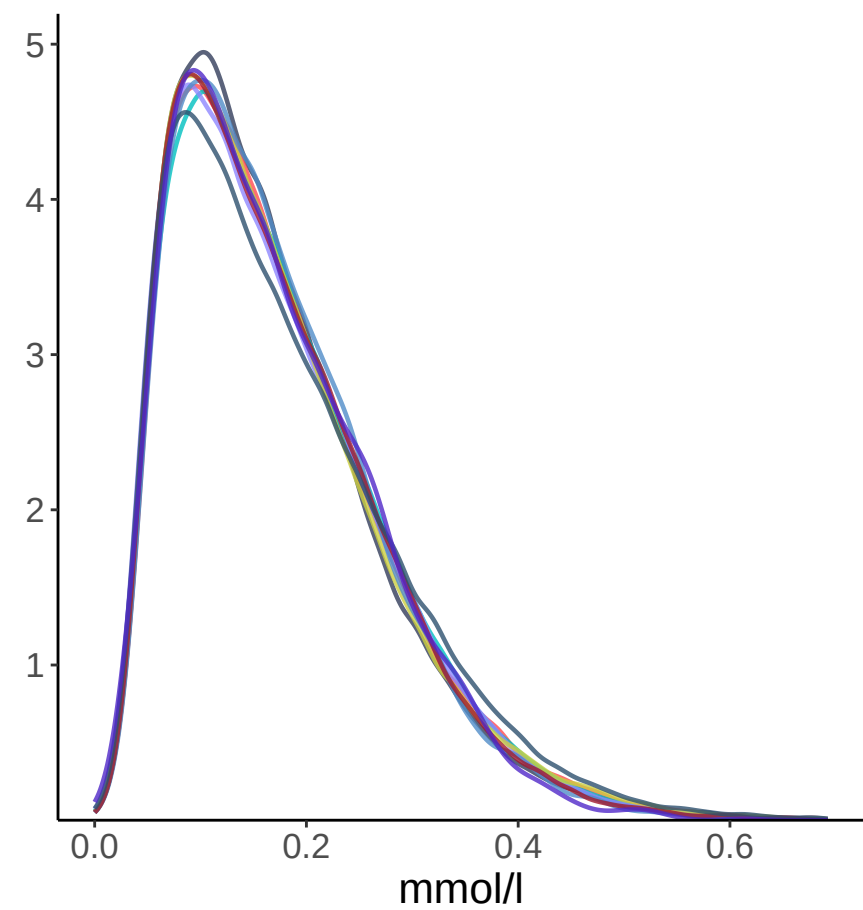
1 2 3 4 5
6 7 8 9



L_VLDL_TG

Spectrometer

1 2 3 4 5
6 7 8 9

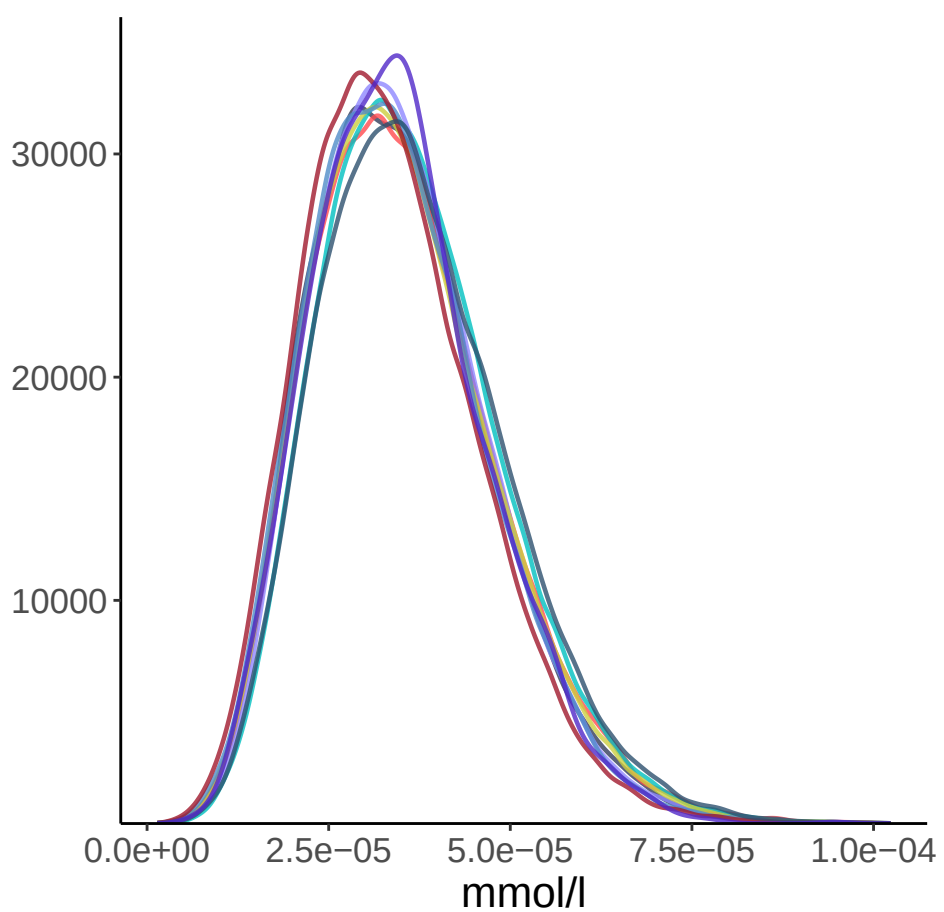


Medium VLDL (average diameter 44.5 nm)

M_VLDL_P

Spectrometer

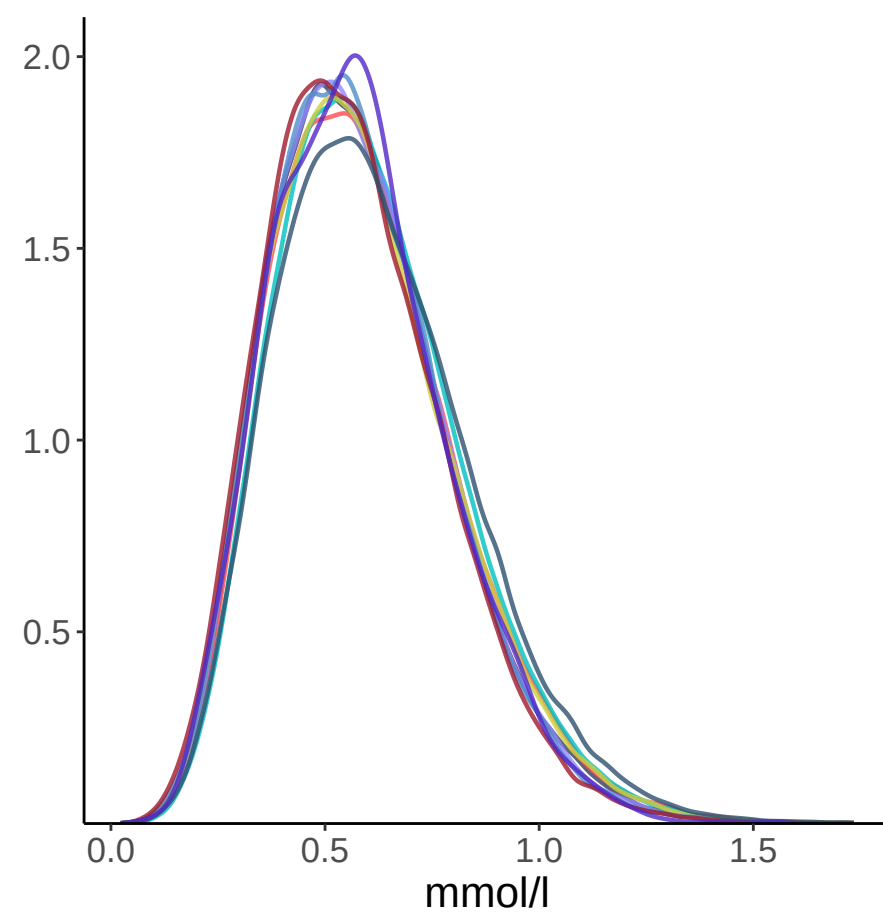
1 2 3 4 5
6 7 8 9



M_VLDL_L

Spectrometer

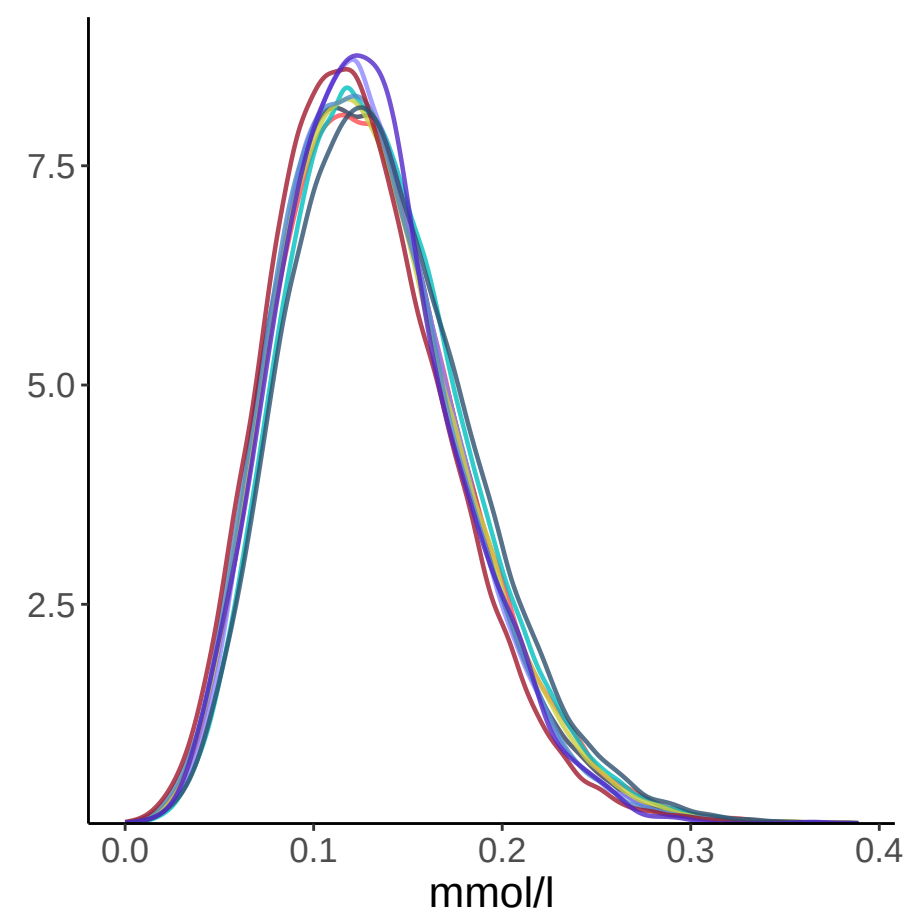
1 2 3 4 5
6 7 8 9



M_VLDL_PL

Spectrometer

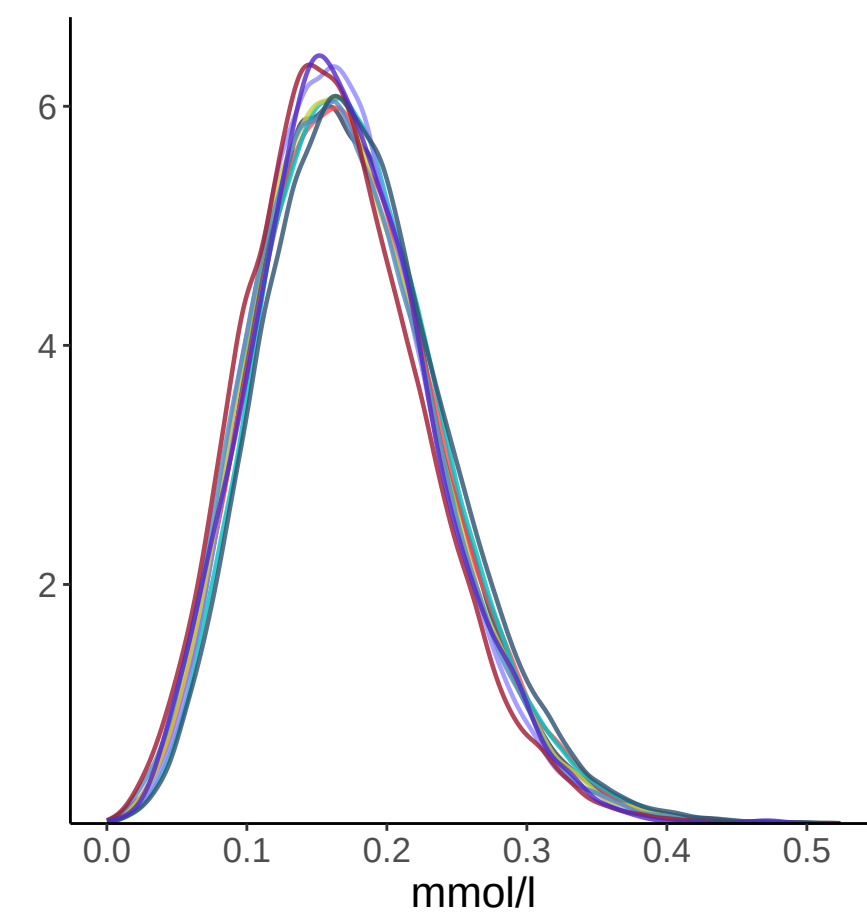
1 2 3 4 5
6 7 8 9



M_VLDL_C

Spectrometer

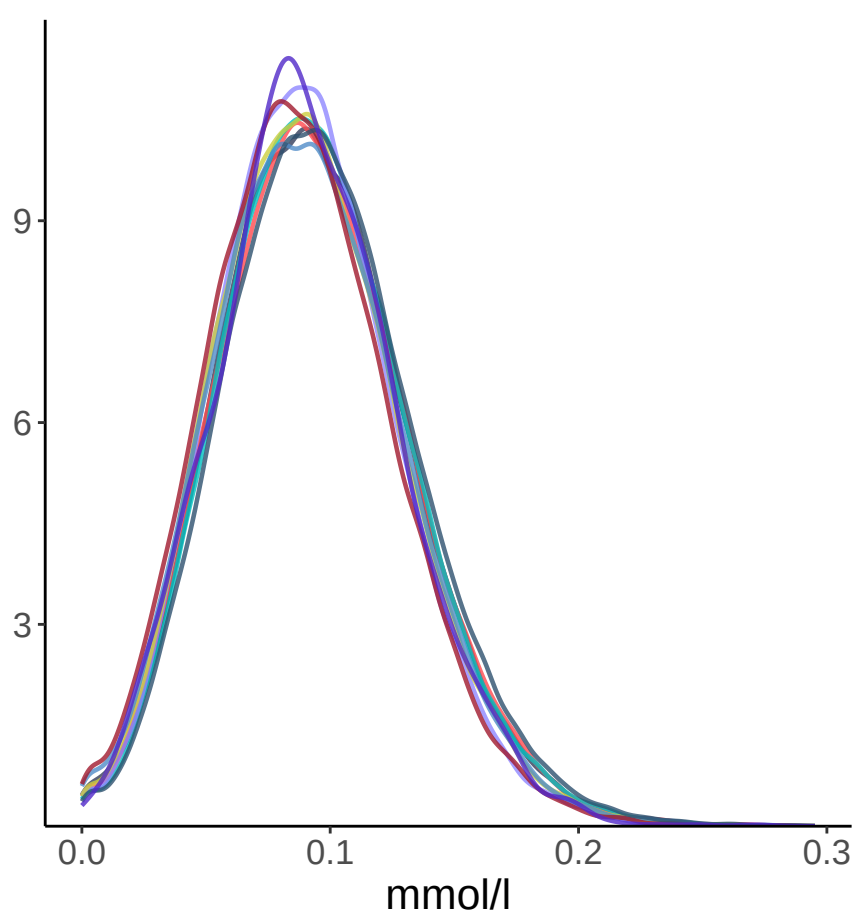
1 2 3 4 5
6 7 8 9



M_VLDL_CE

Spectrometer

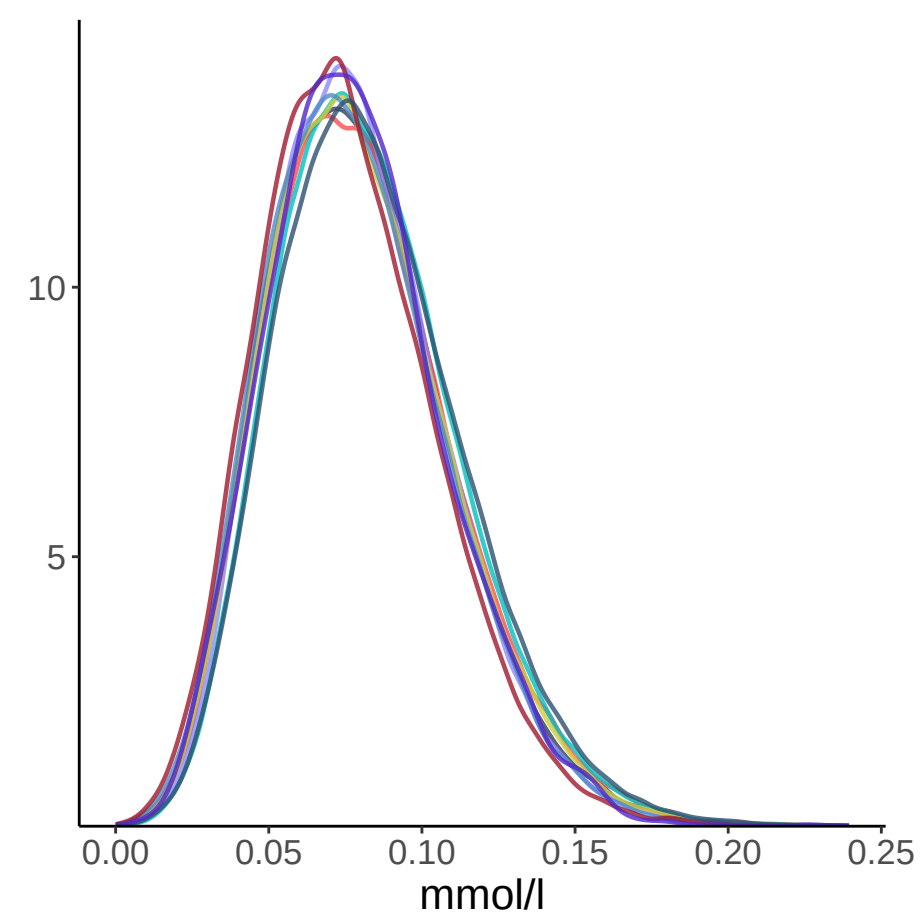
1 2 3 4 5
6 7 8 9



M_VLDL_FC

Spectrometer

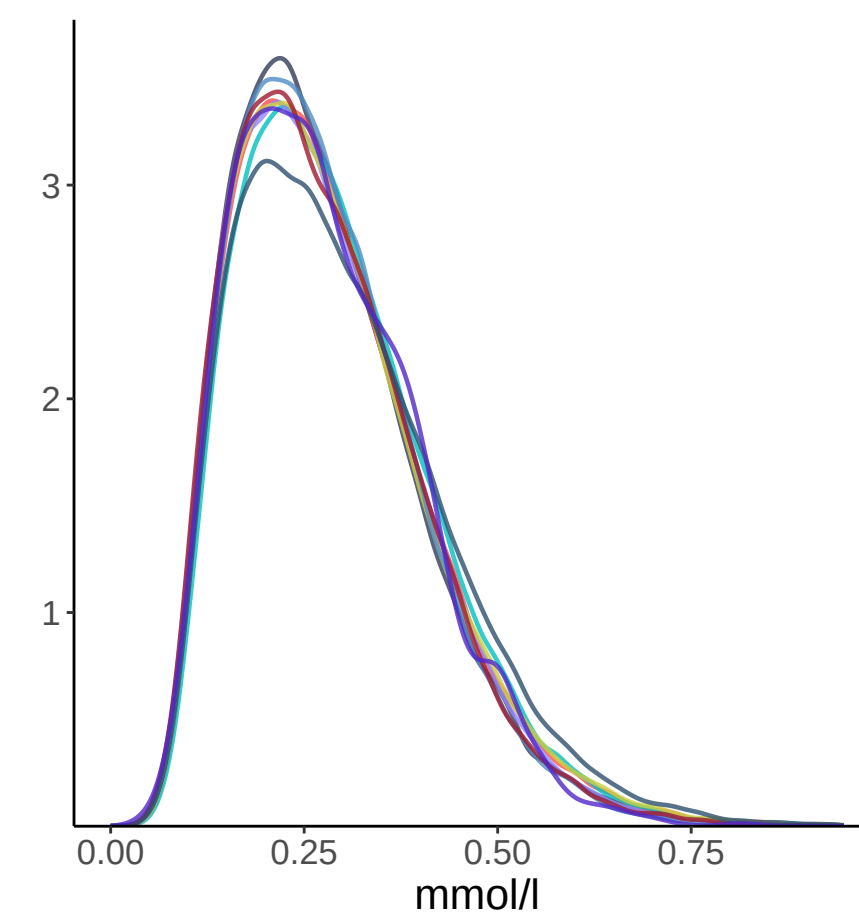
1 2 3 4 5
6 7 8 9



M_VLDL_TG

Spectrometer

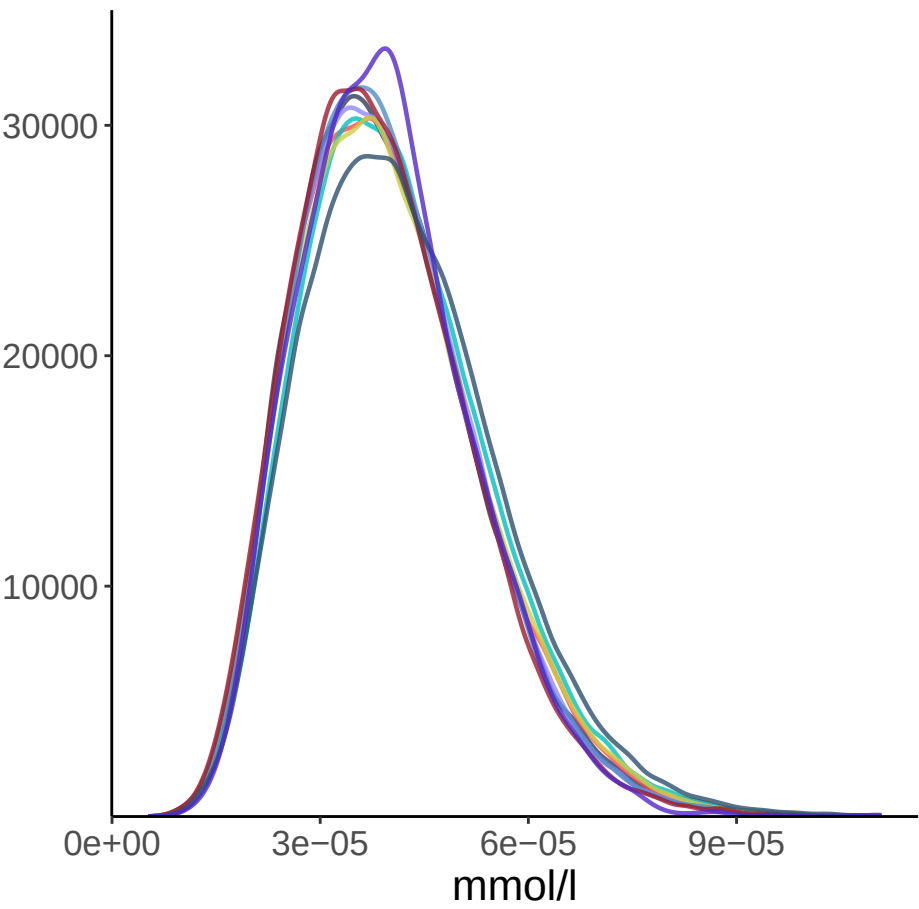
1 2 3 4 5
6 7 8 9



Small VLDL (average diameter 36.8 nm)

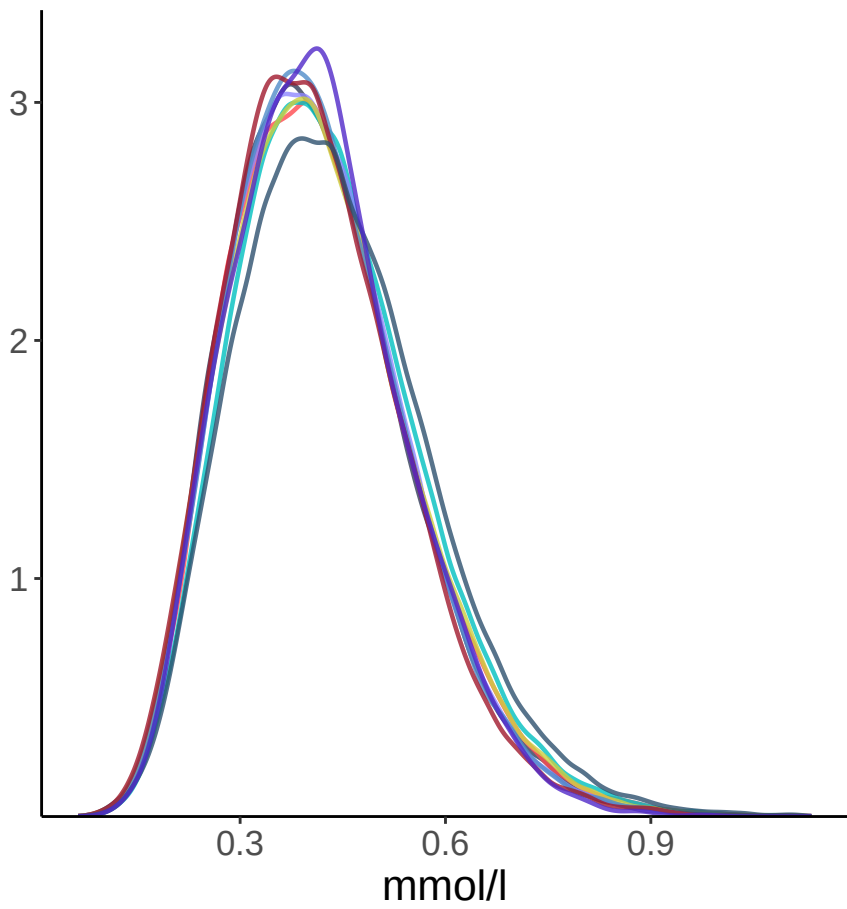
S_VLDL_P

Spectrometer



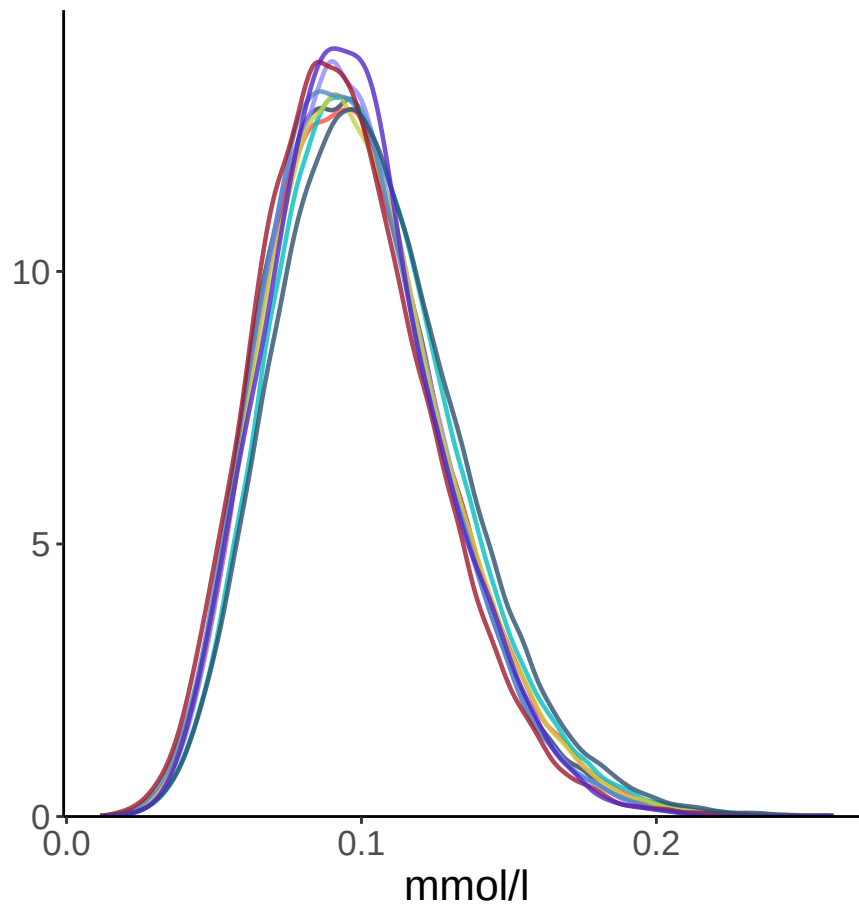
S_VLDL_L

Spectrometer



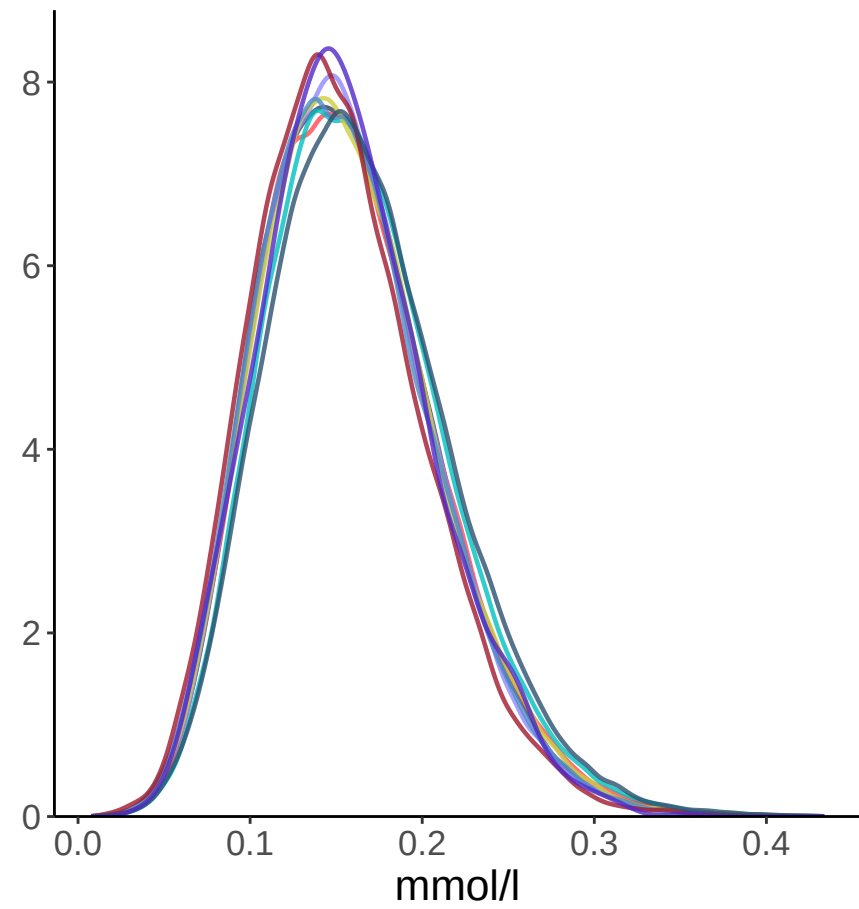
S_VLDL_PL

Spectrometer



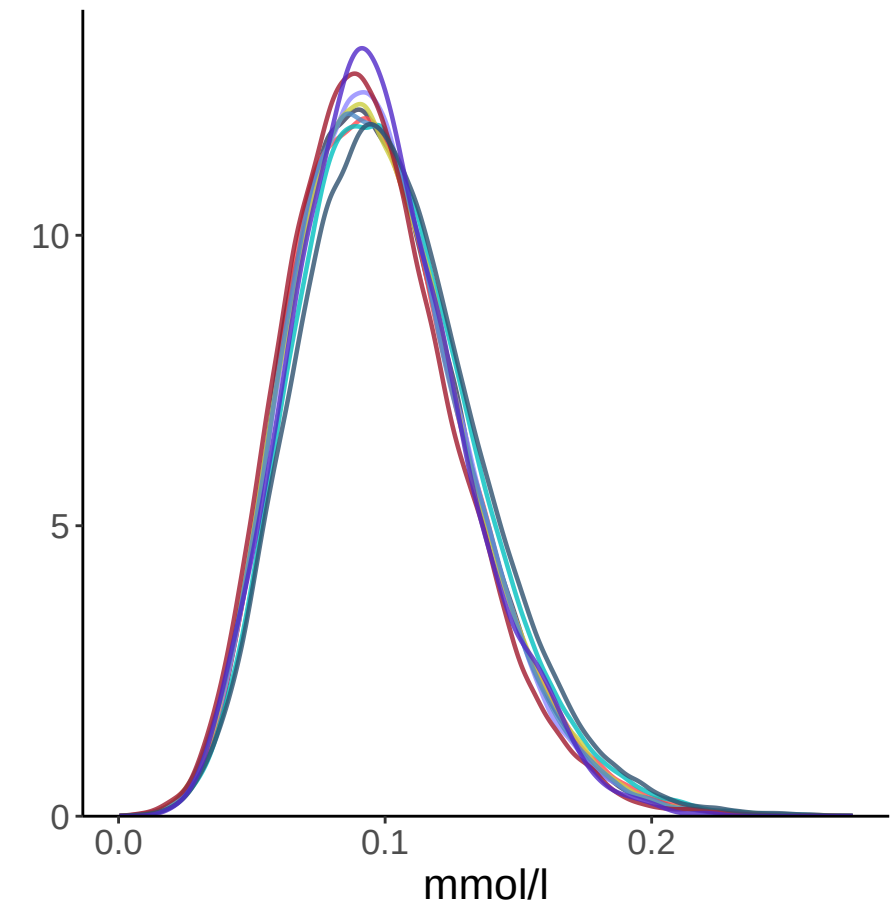
S_VLDL_C

Spectrometer



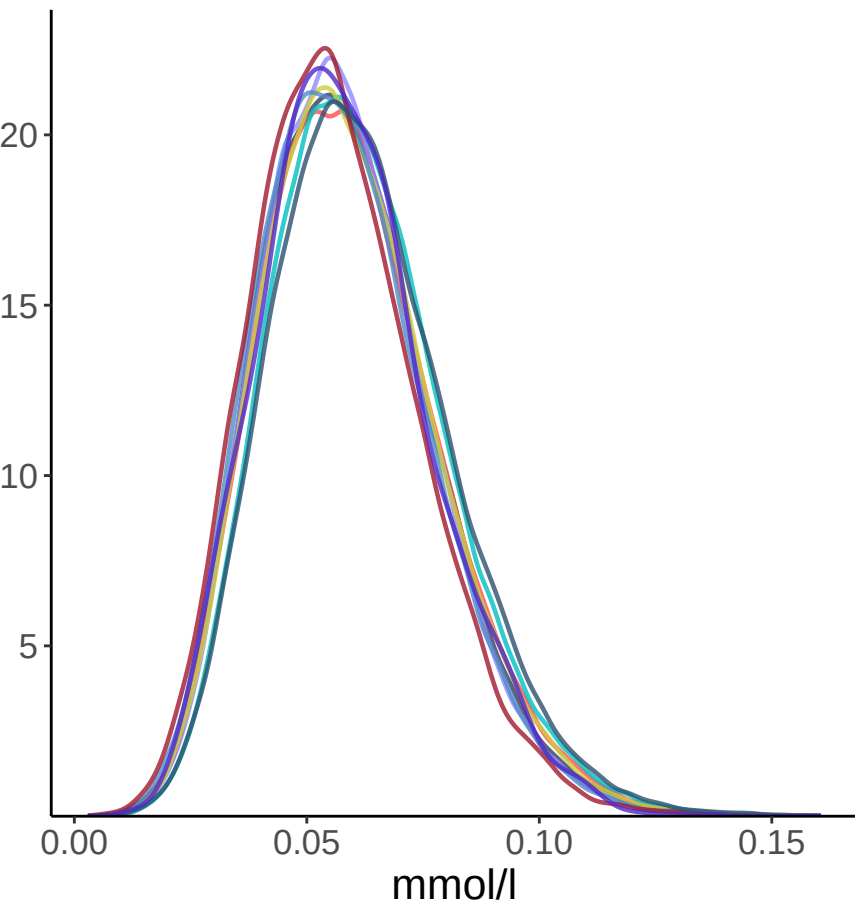
S_VLDL_CE

Spectrometer



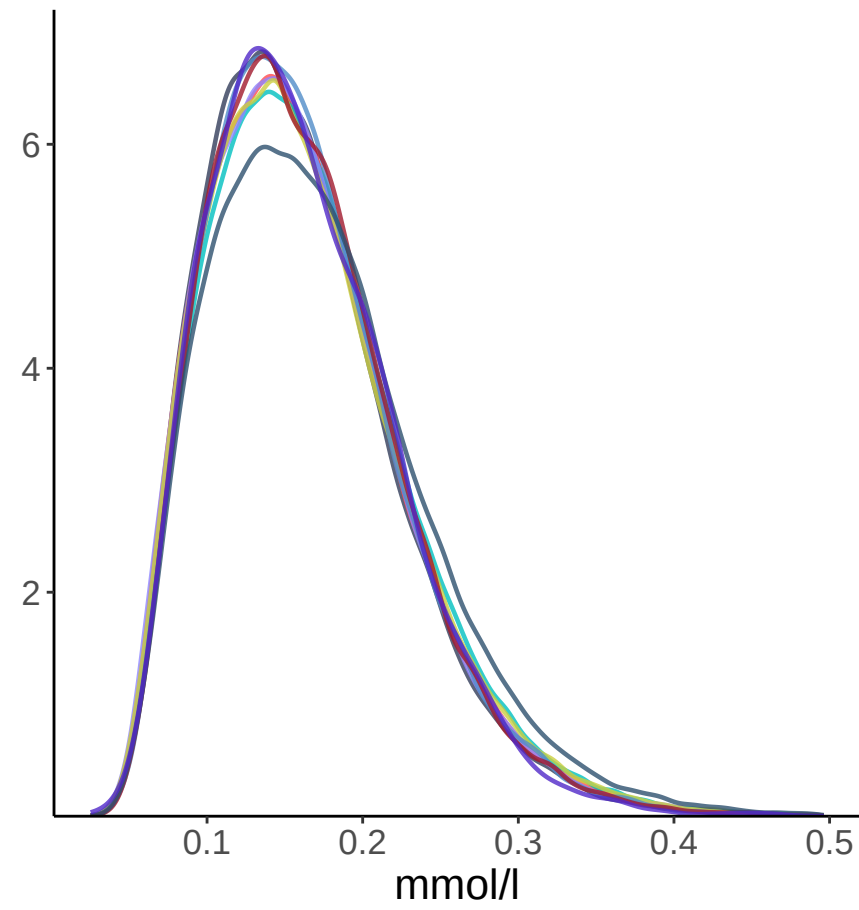
S_VLDL_FC

Spectrometer



S_VLDL_TG

Spectrometer

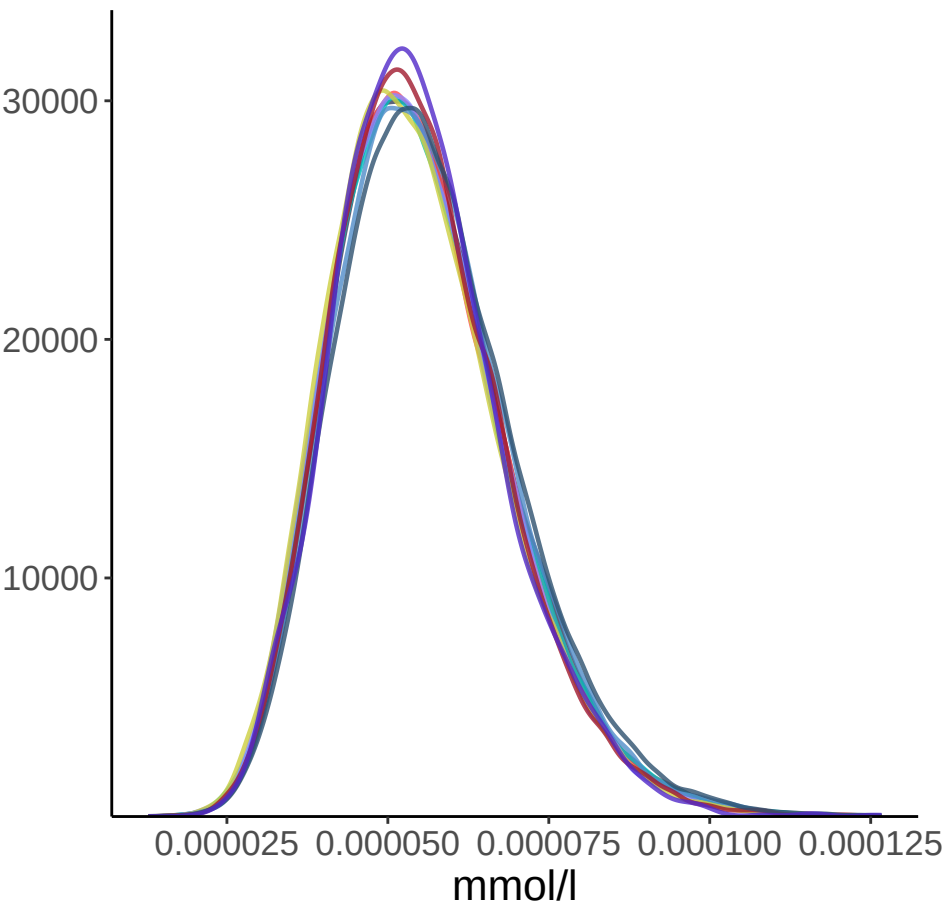


Very small VLDL (average diameter 31.3 nm)

XS_VLDL_P

Spectrometer

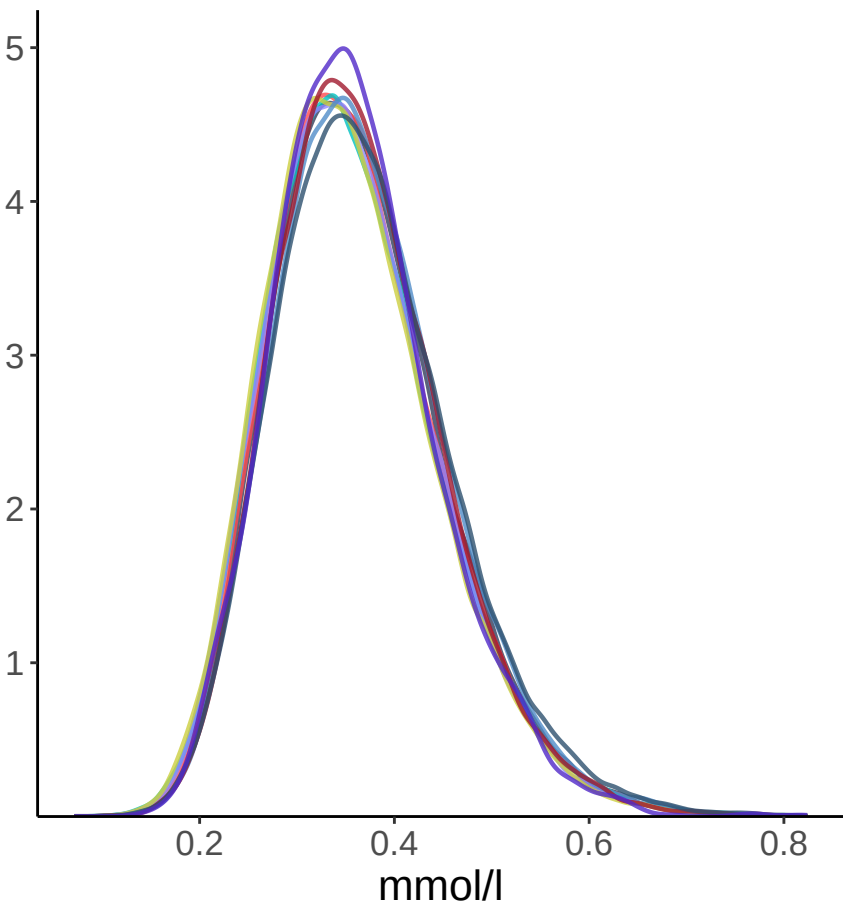
- 1 2 3 4 5
6 7 8 9



XS_VLDL_L

Spectrometer

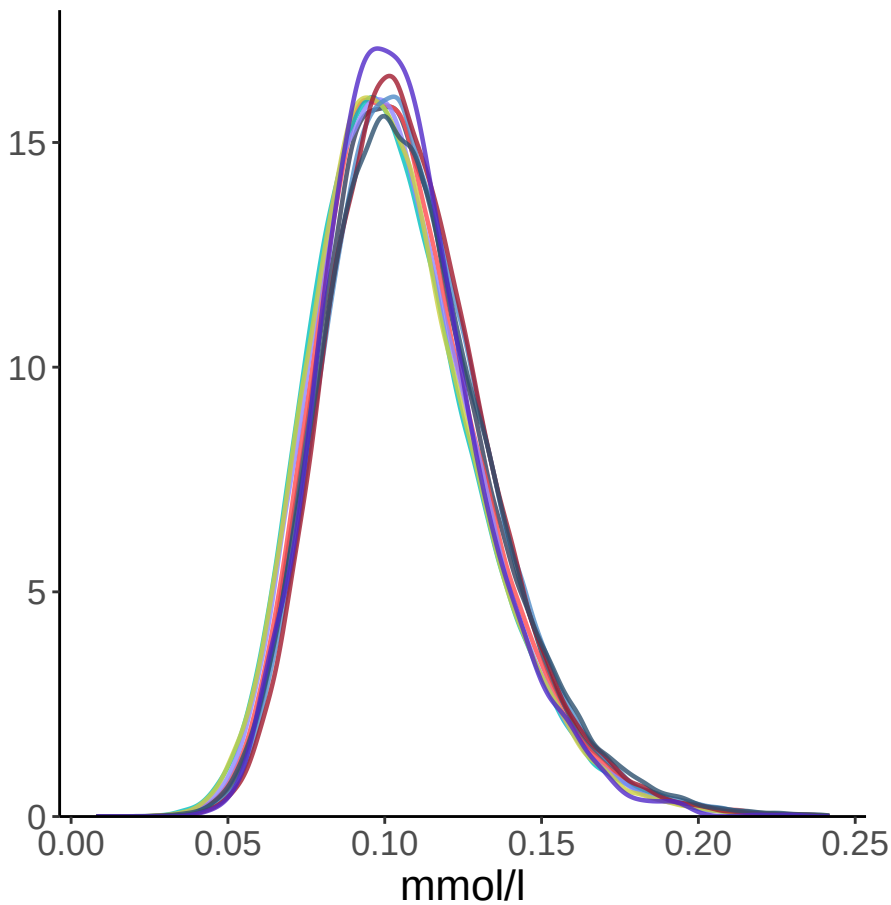
- 1 2 3 4 5
6 7 8 9



XS_VLDL_PL

Spectrometer

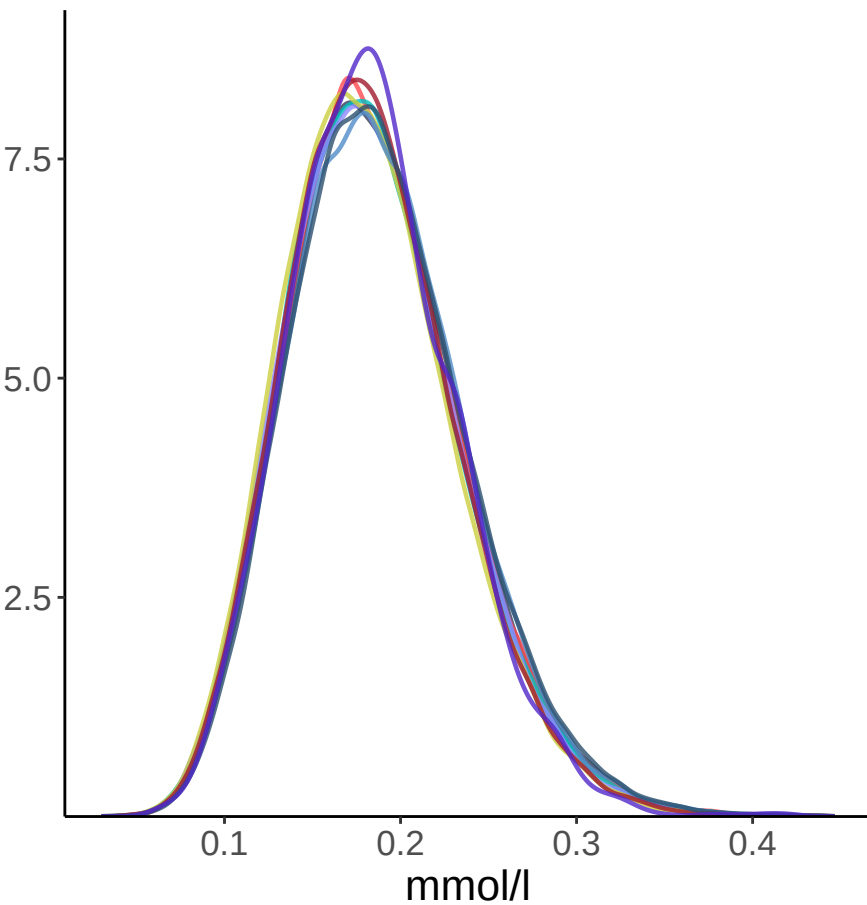
- 1 2 3 4 5
6 7 8 9



XS_VLDL_C

Spectrometer

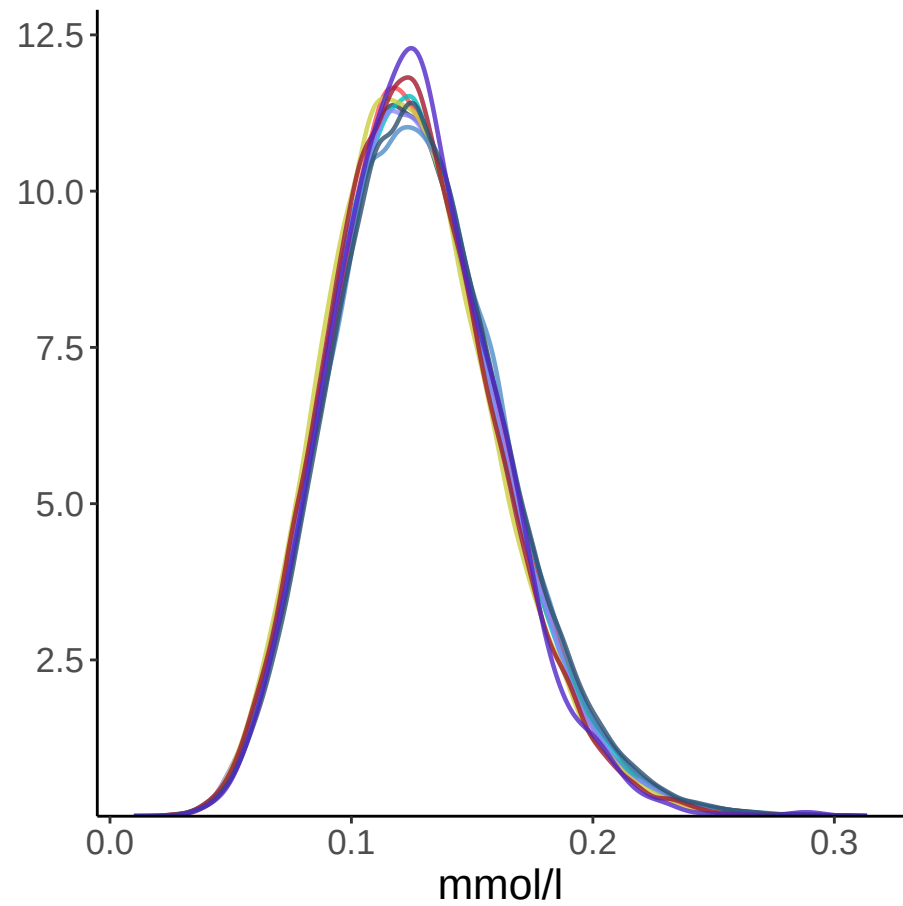
- 1 2 3 4 5
6 7 8 9



XS_VLDL_CE

Spectrometer

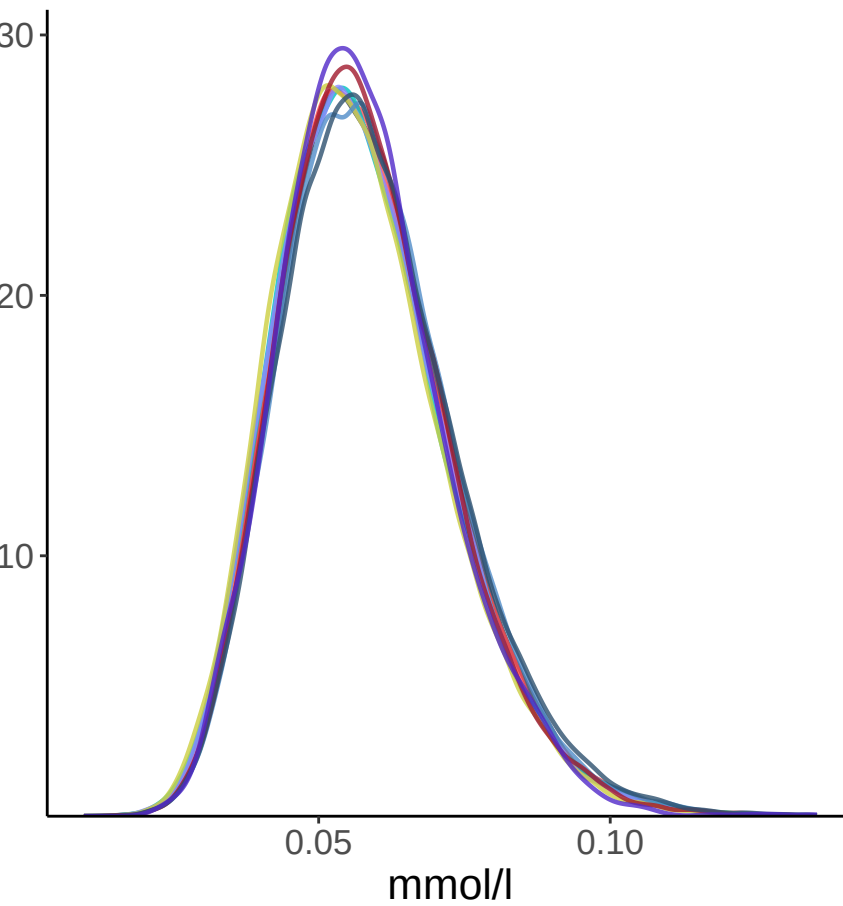
- 1 2 3 4 5
6 7 8 9



XS_VLDL_FC

Spectrometer

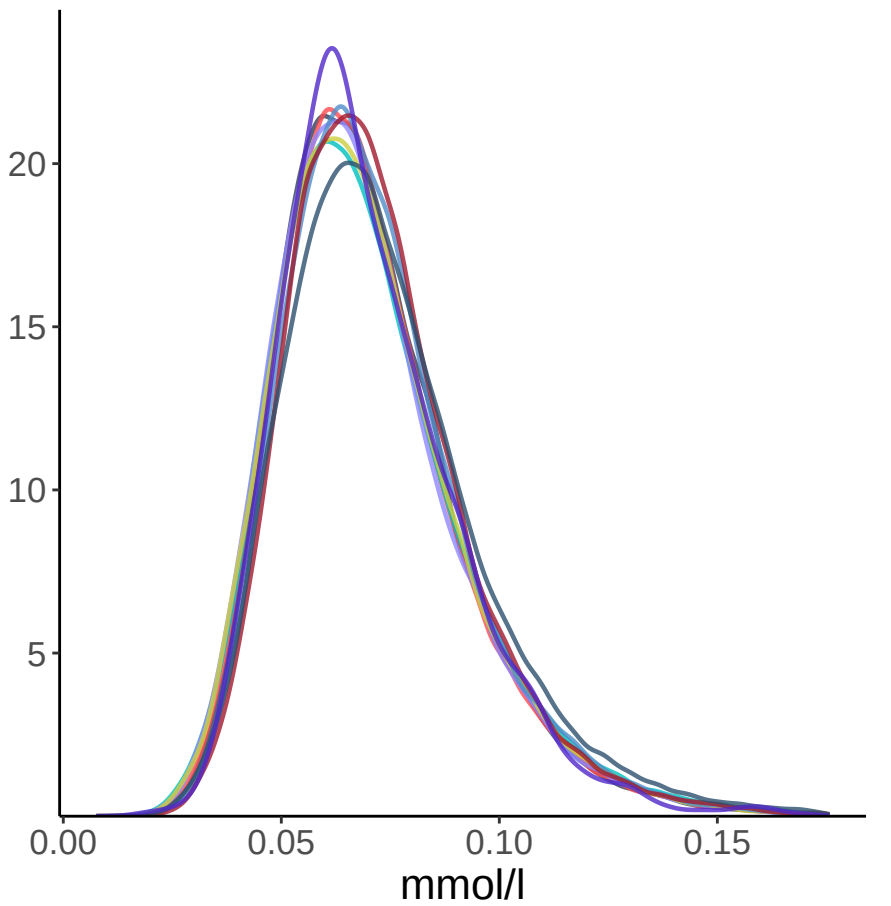
- 1 2 3 4 5
6 7 8 9



XS_VLDL_TG

Spectrometer

- 1 2 3 4 5
6 7 8 9

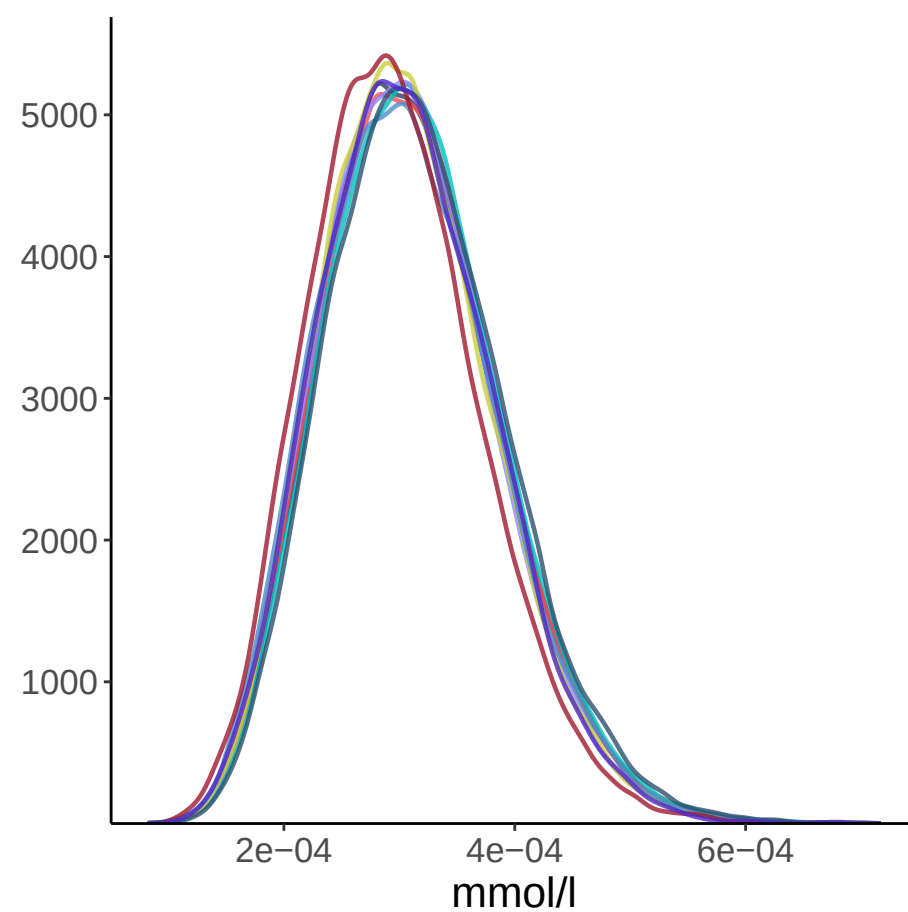


IDL (average diameter 28.6 nm)

IDL_P

Spectrometer

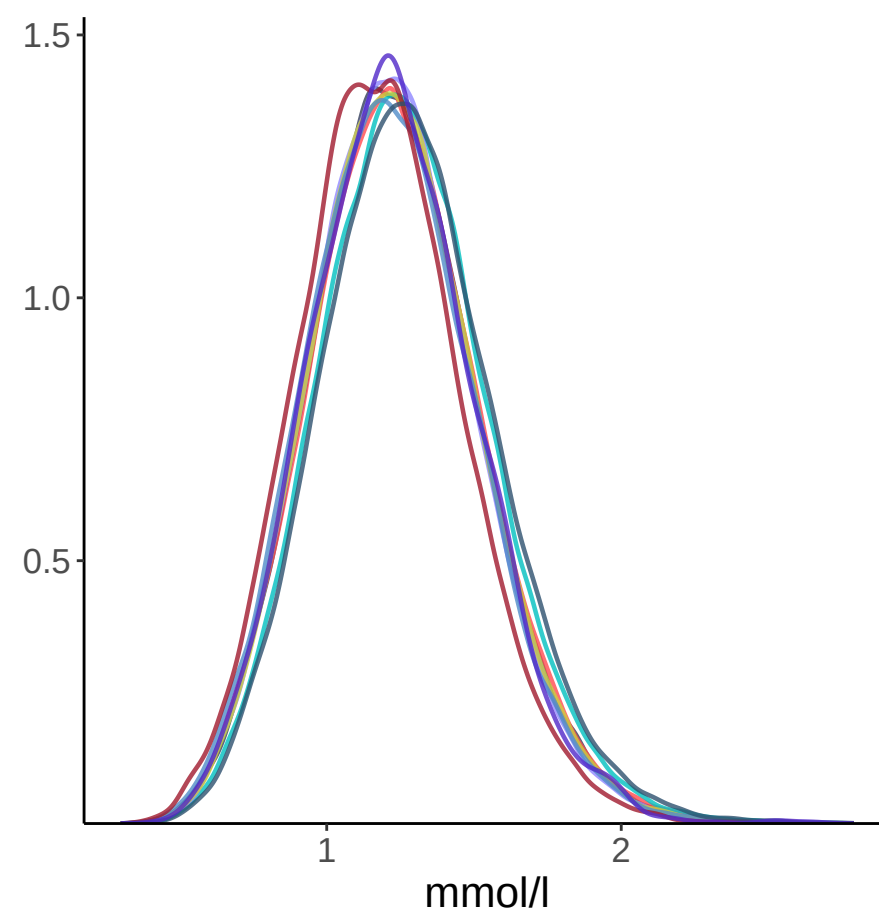
1 2 3 4 5
6 7 8 9



IDL_L

Spectrometer

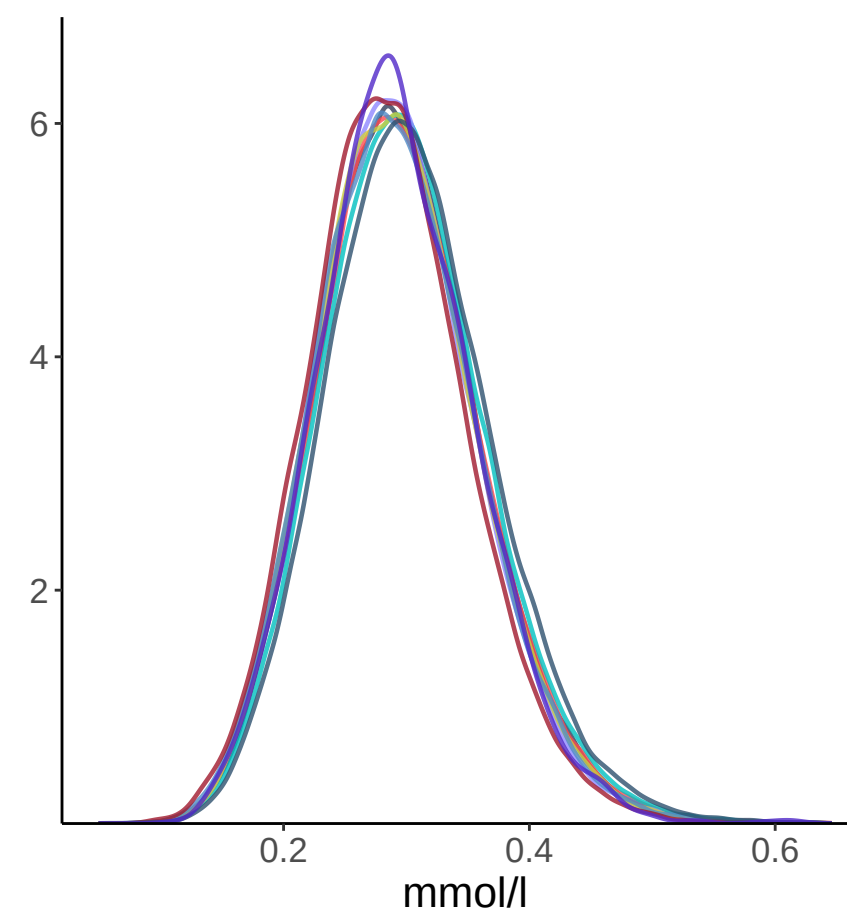
1 2 3 4 5
6 7 8 9



IDL_PL

Spectrometer

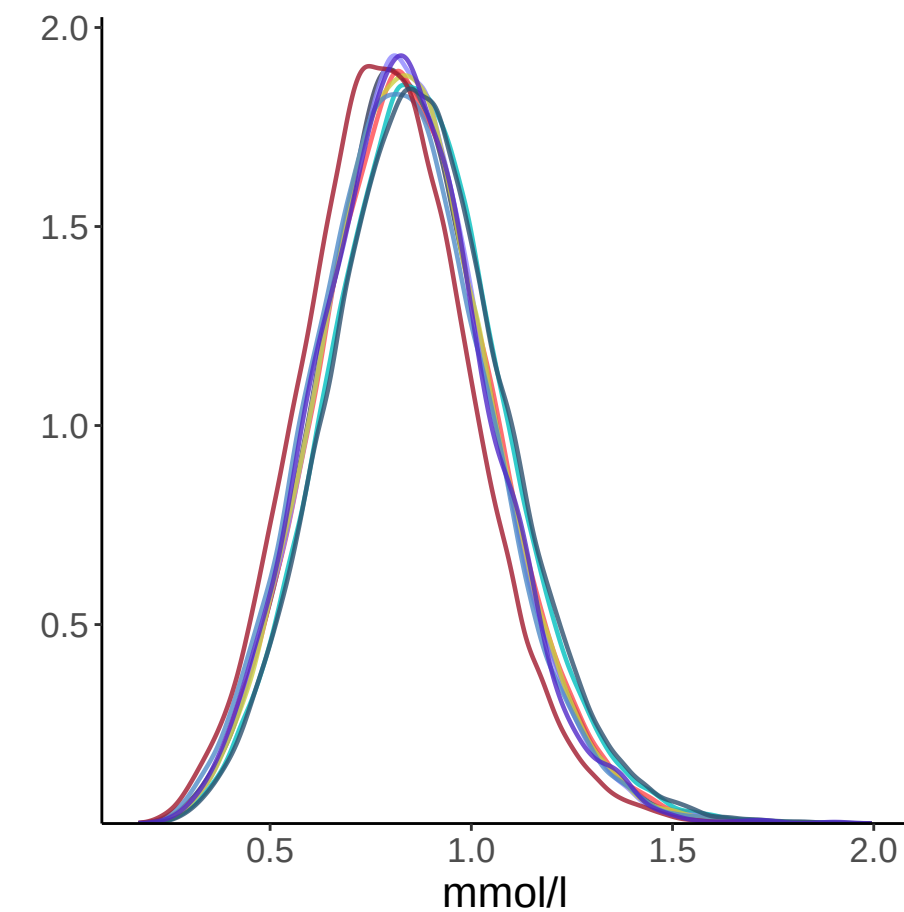
1 2 3 4 5
6 7 8 9



IDL_C

Spectrometer

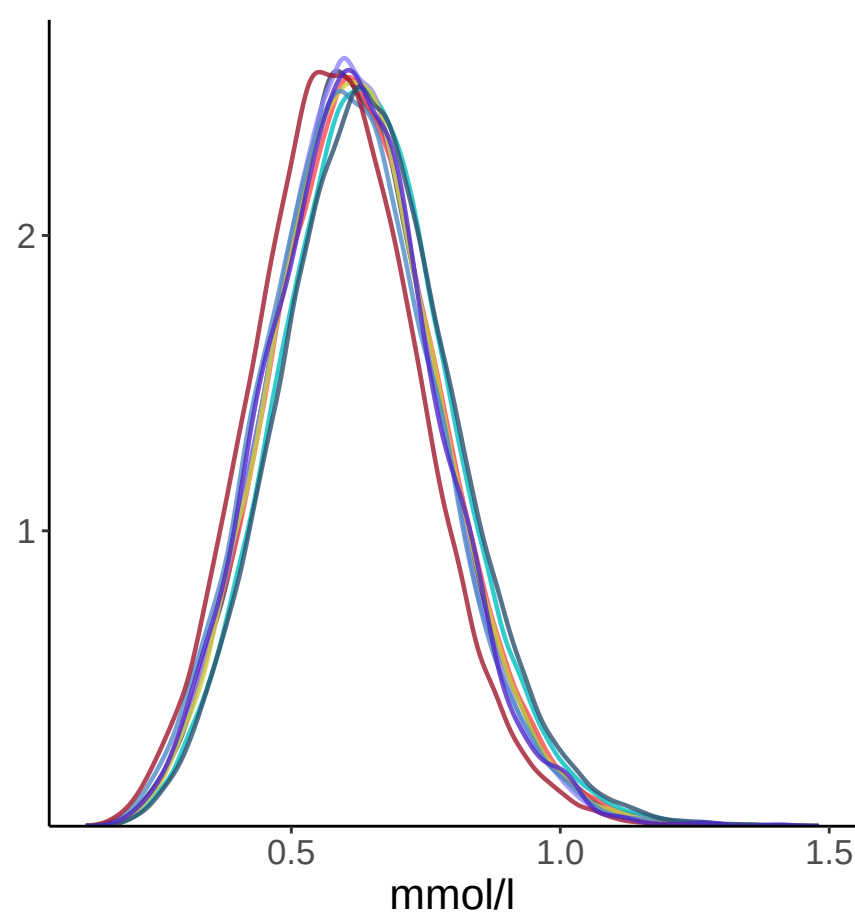
1 2 3 4 5
6 7 8 9



IDL_CE

Spectrometer

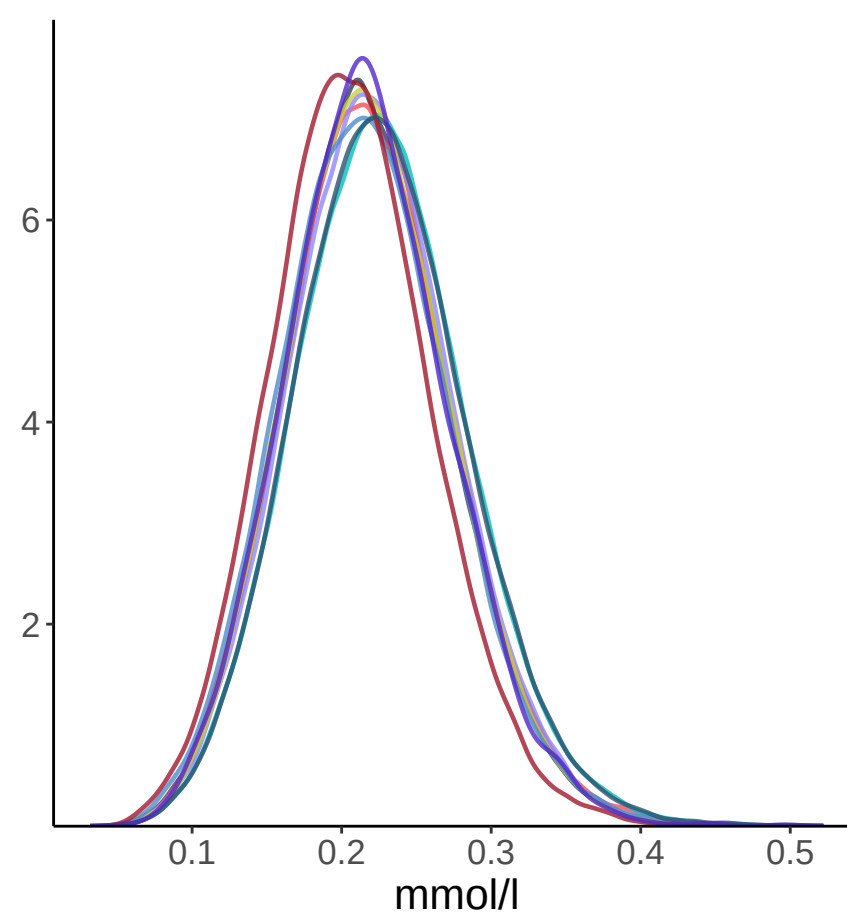
1 2 3 4 5
6 7 8 9



IDL_FC

Spectrometer

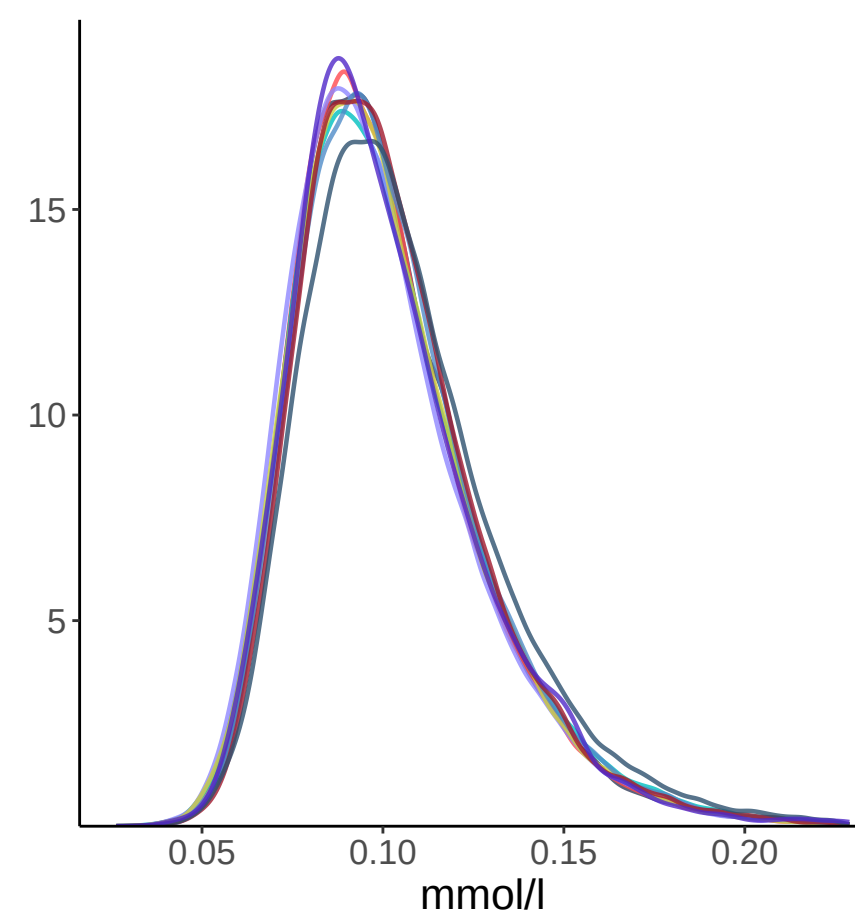
1 2 3 4 5
6 7 8 9



IDL_TG

Spectrometer

1 2 3 4 5
6 7 8 9

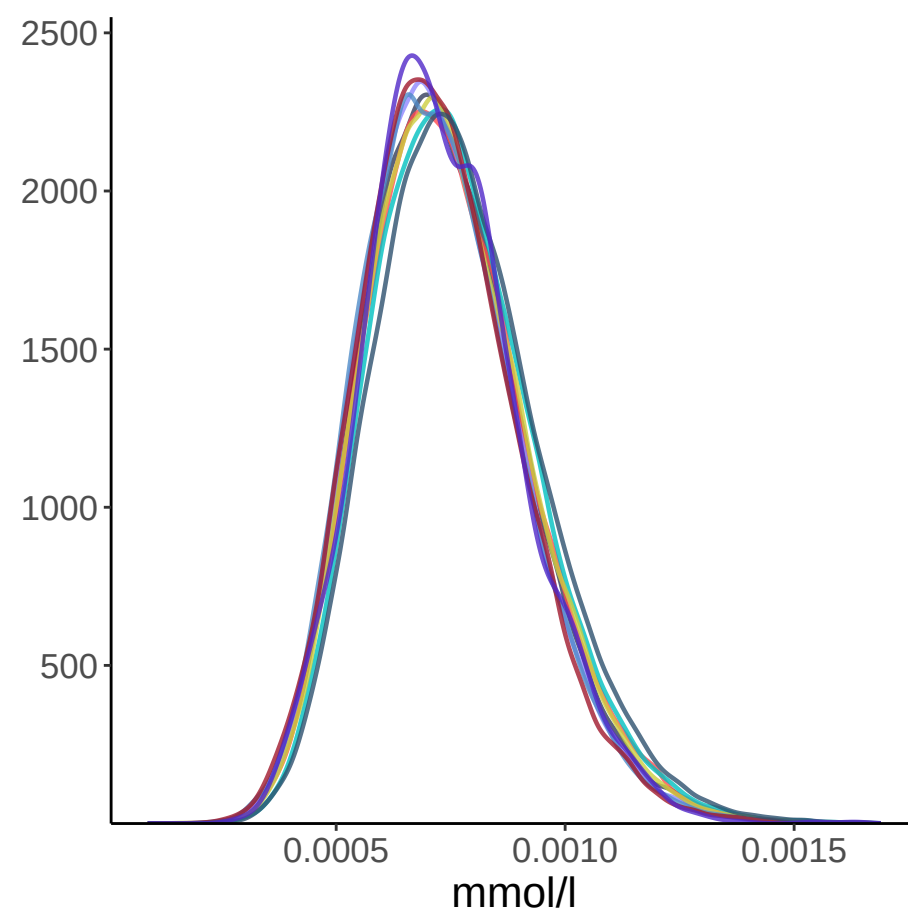


Large LDL (average diameter 25.5 nm)

L_LDL_P

Spectrometer

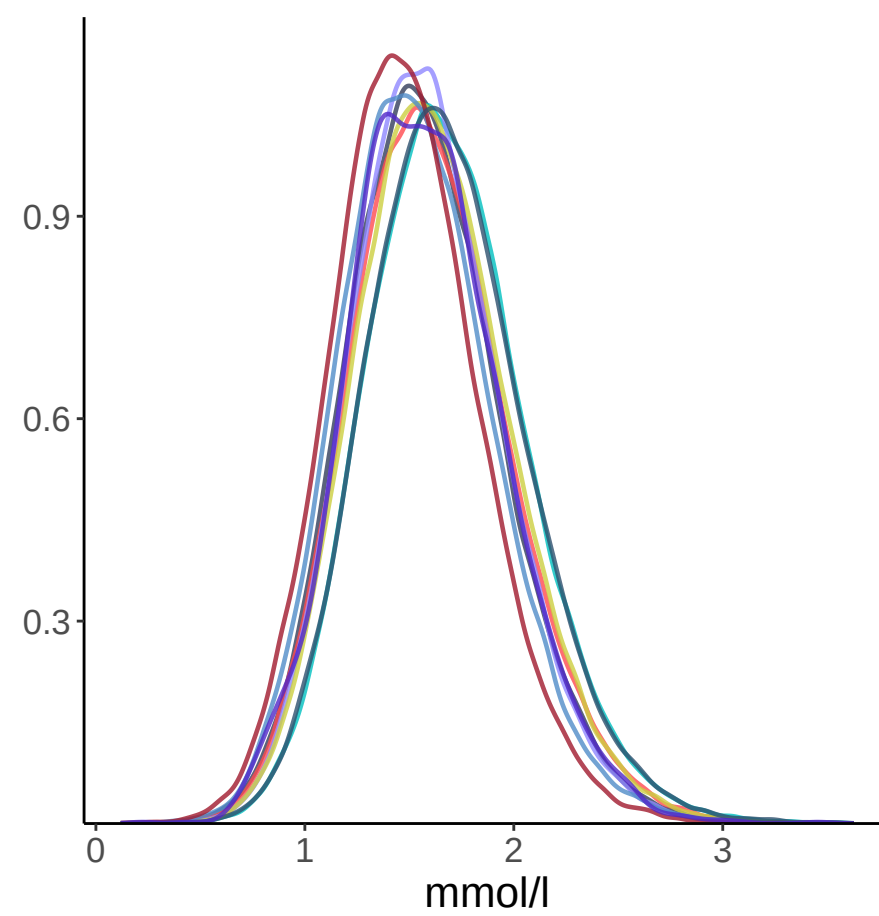
1 2 3 4 5
6 7 8 9



L_LDL_L

Spectrometer

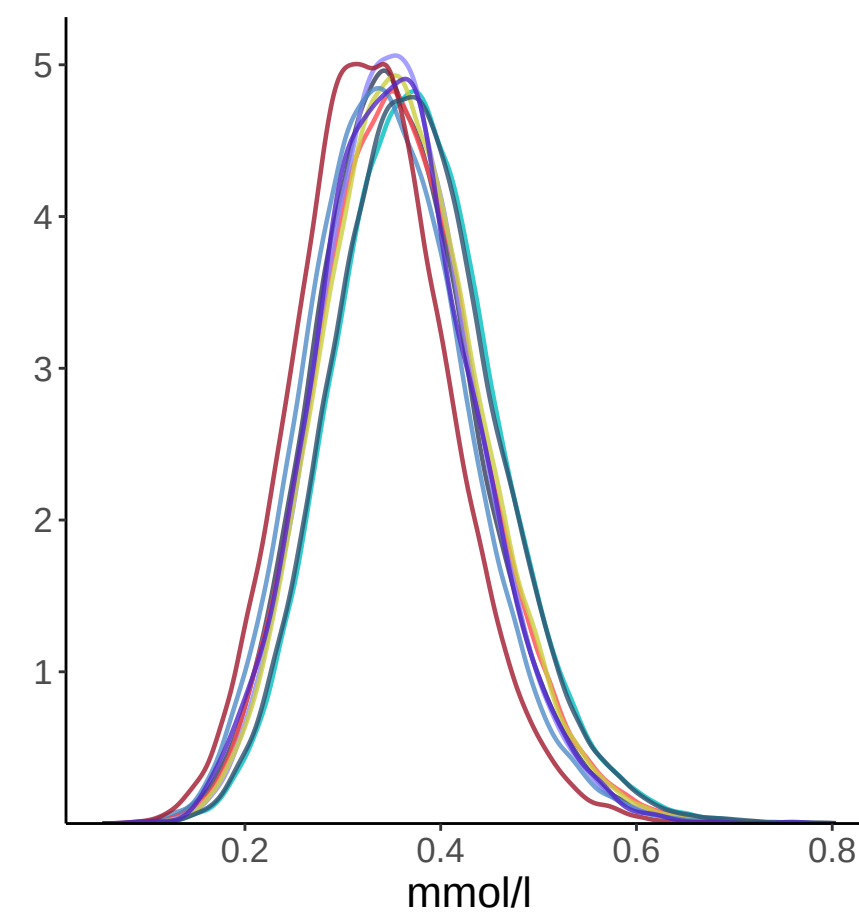
1 2 3 4 5
6 7 8 9



L_LDL_PL

Spectrometer

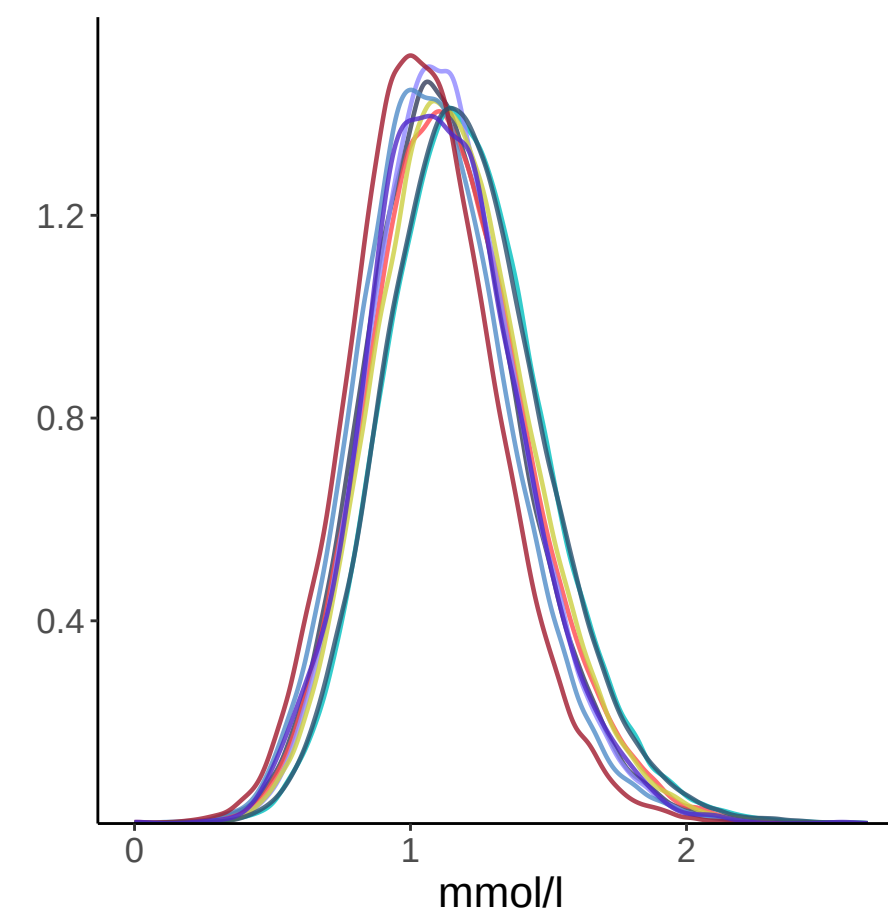
1 2 3 4 5
6 7 8 9



L_LDL_C

Spectrometer

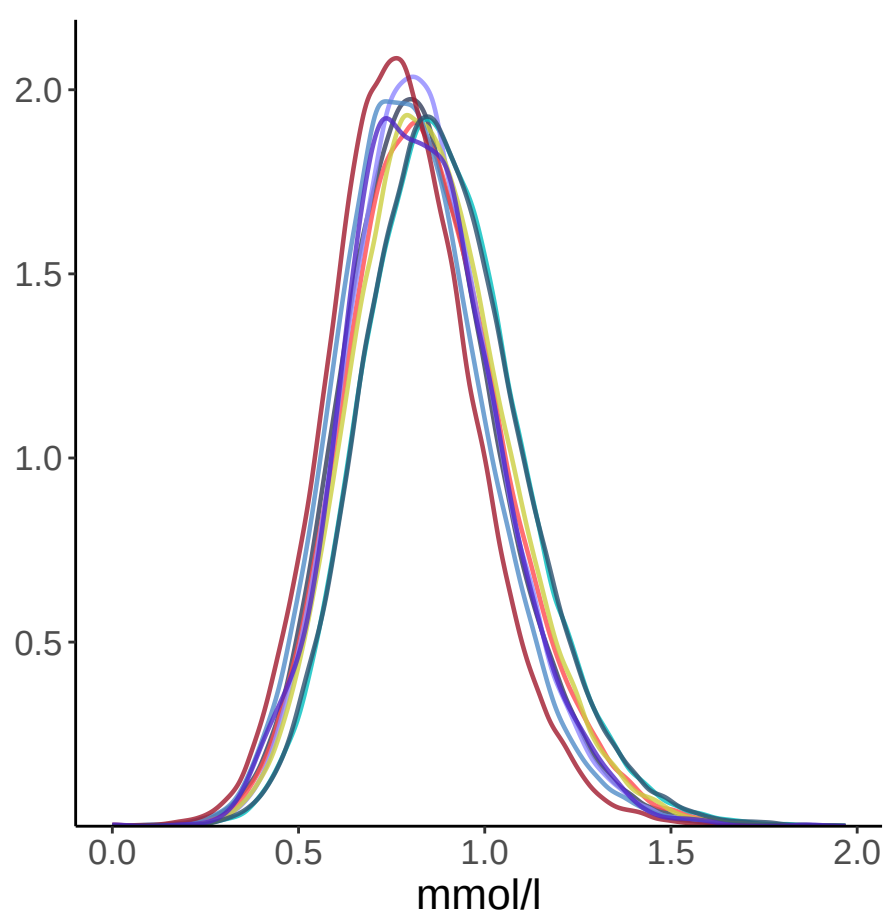
1 2 3 4 5
6 7 8 9



L_LDL_CE

Spectrometer

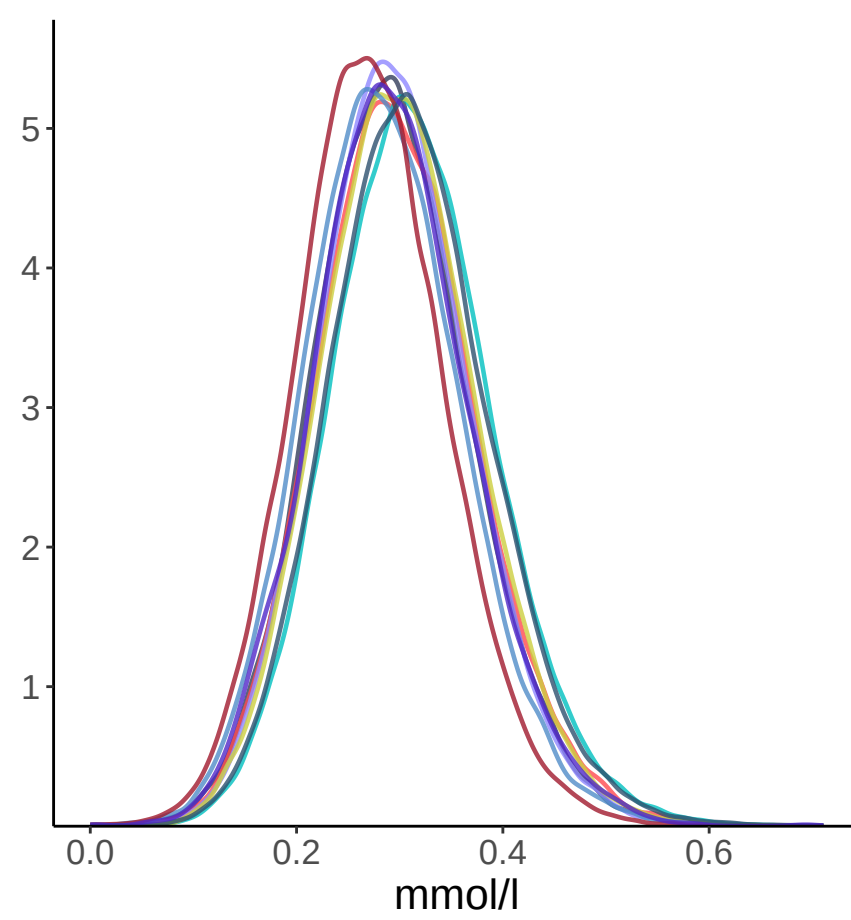
1 2 3 4 5
6 7 8 9



L_LDL_FC

Spectrometer

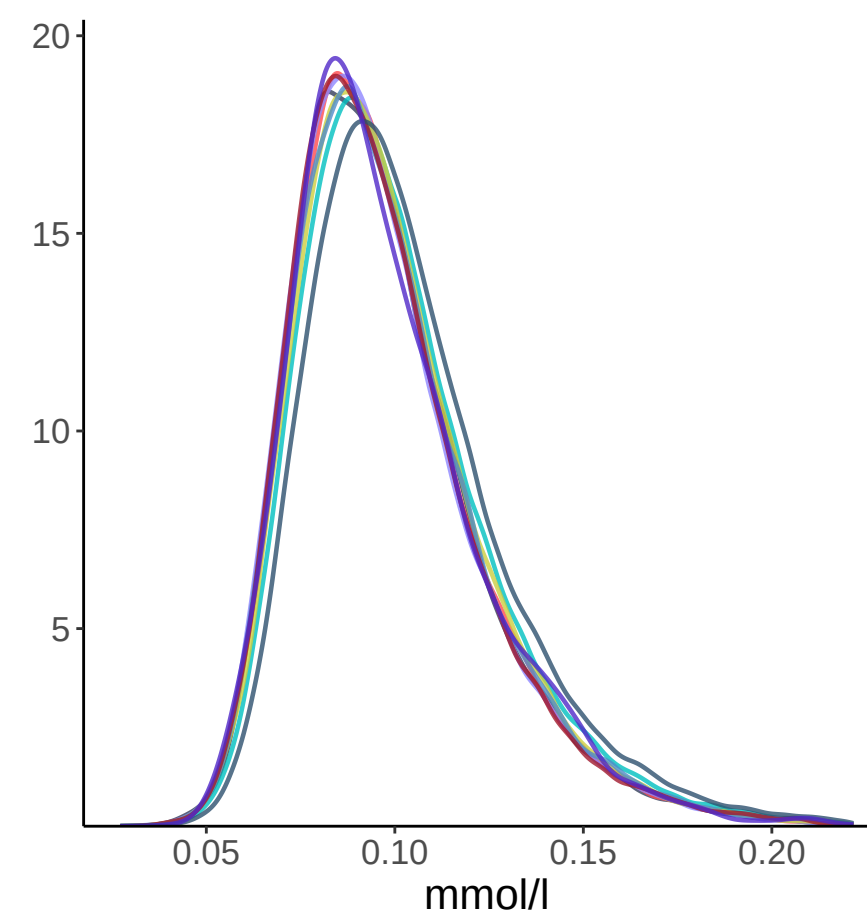
1 2 3 4 5
6 7 8 9



L_LDL_TG

Spectrometer

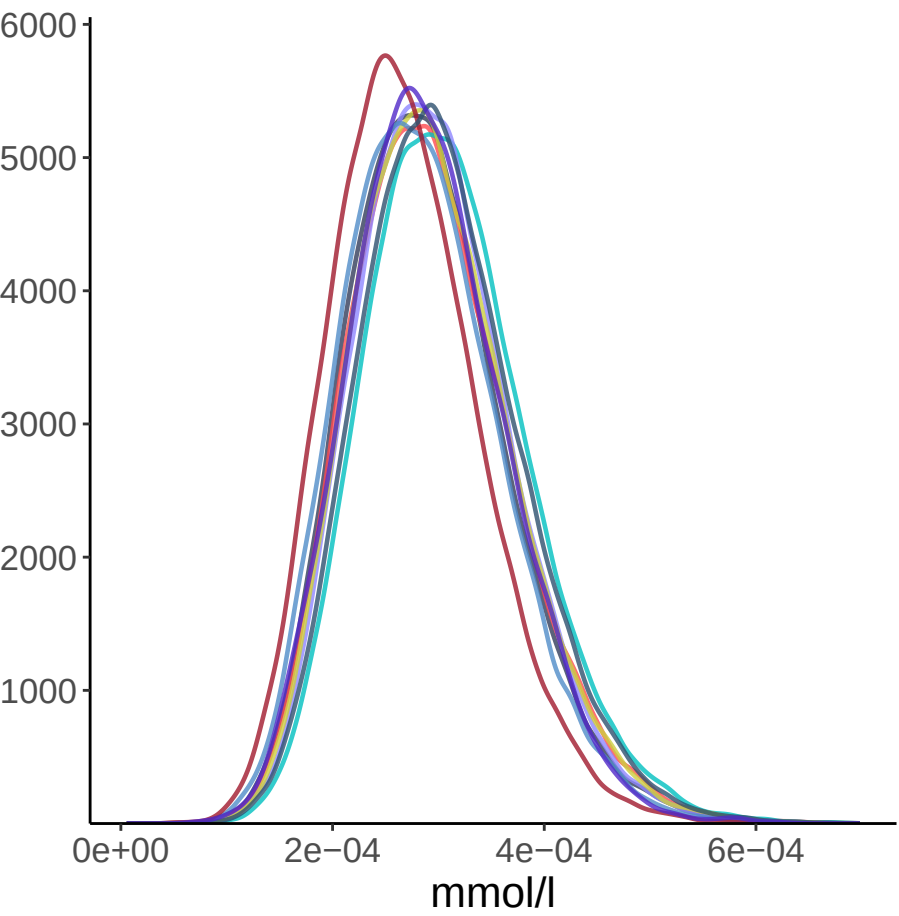
1 2 3 4 5
6 7 8 9



Medium LDL (average diameter 23 nm)

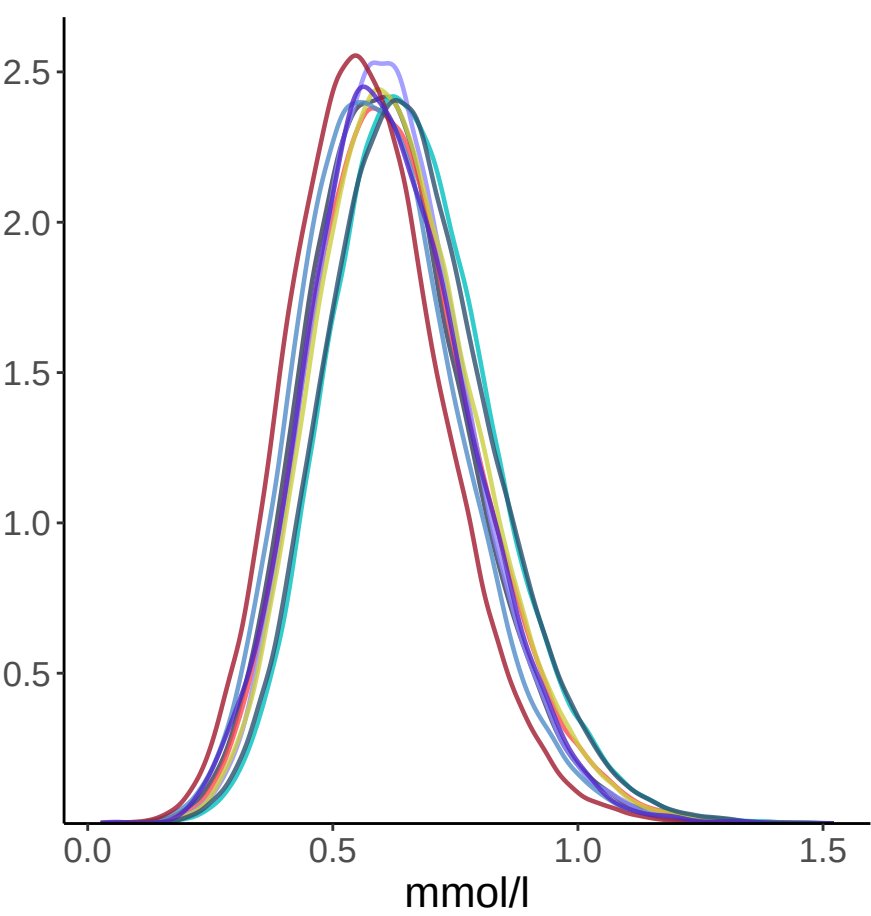
M_LDL_P

Spectrometer



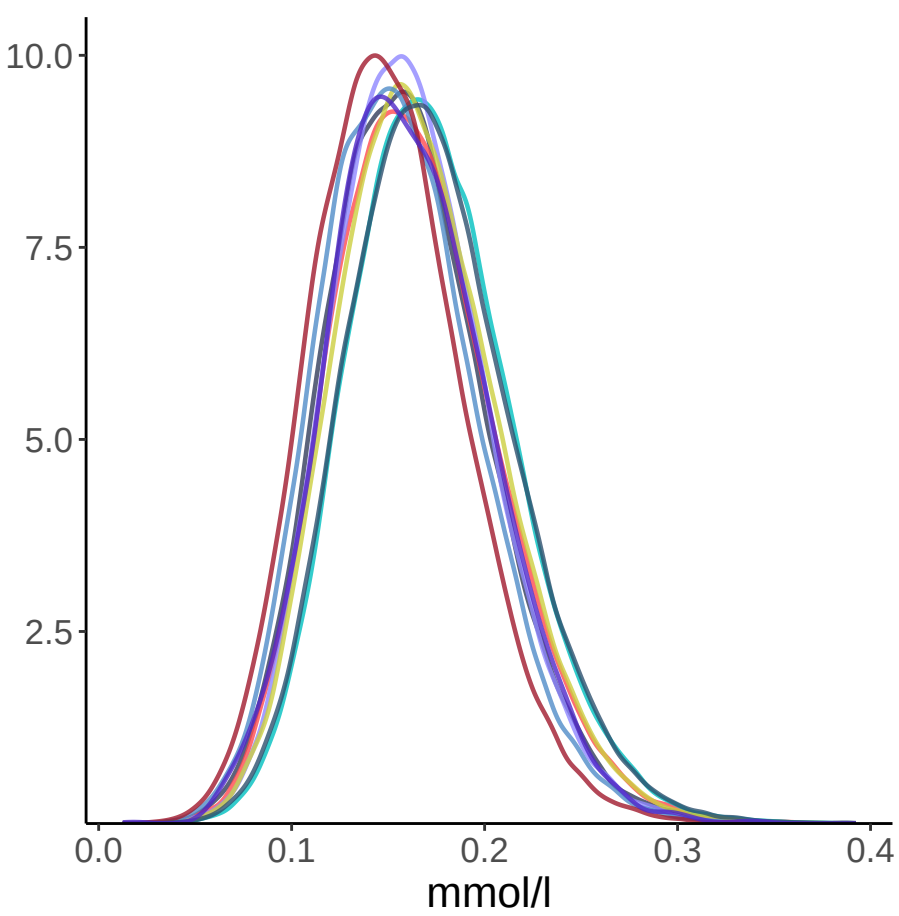
M_LDL_L

Spectrometer



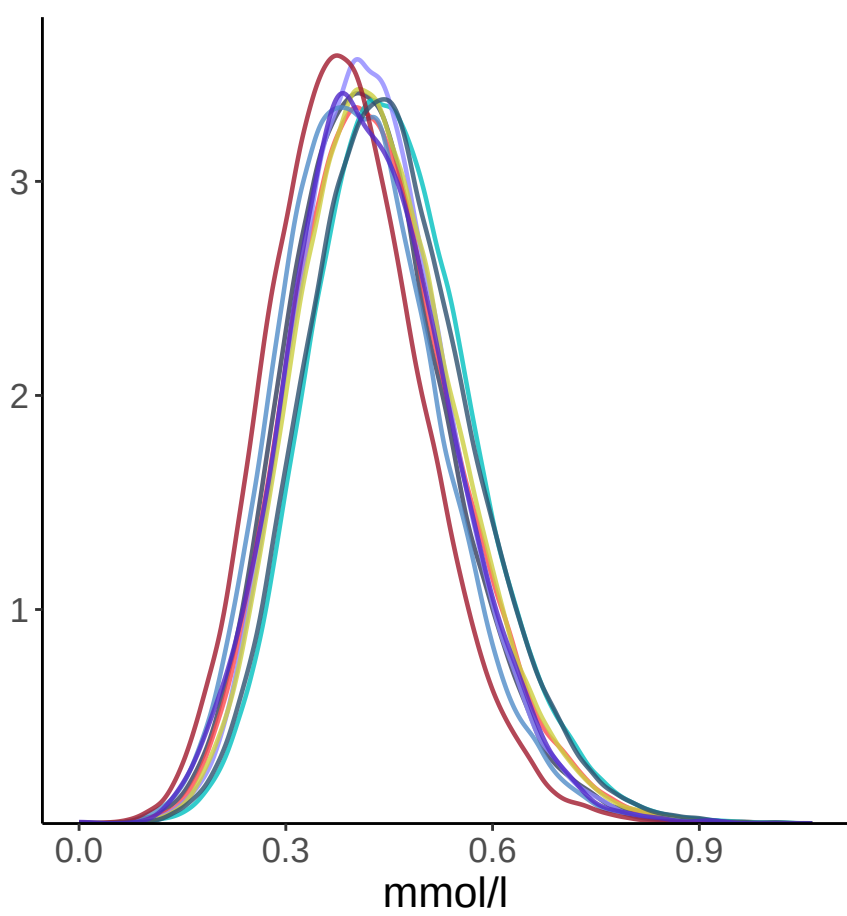
M_LDL_PL

Spectrometer



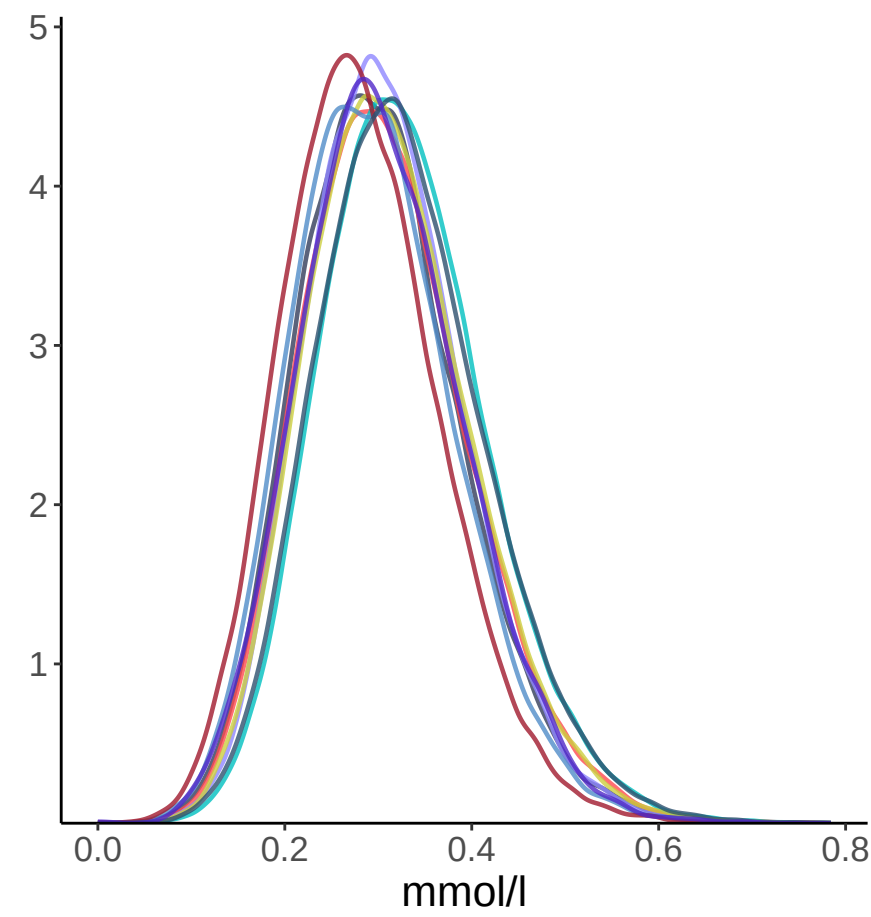
M_LDL_C

Spectrometer



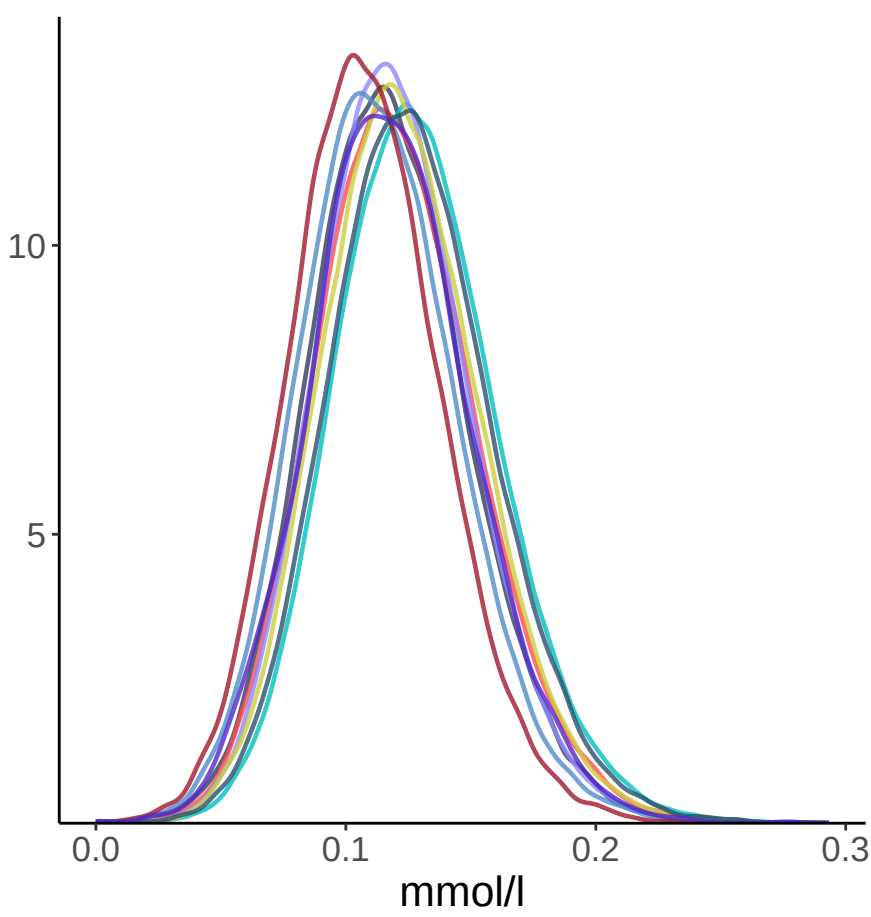
M_LDL_CE

Spectrometer



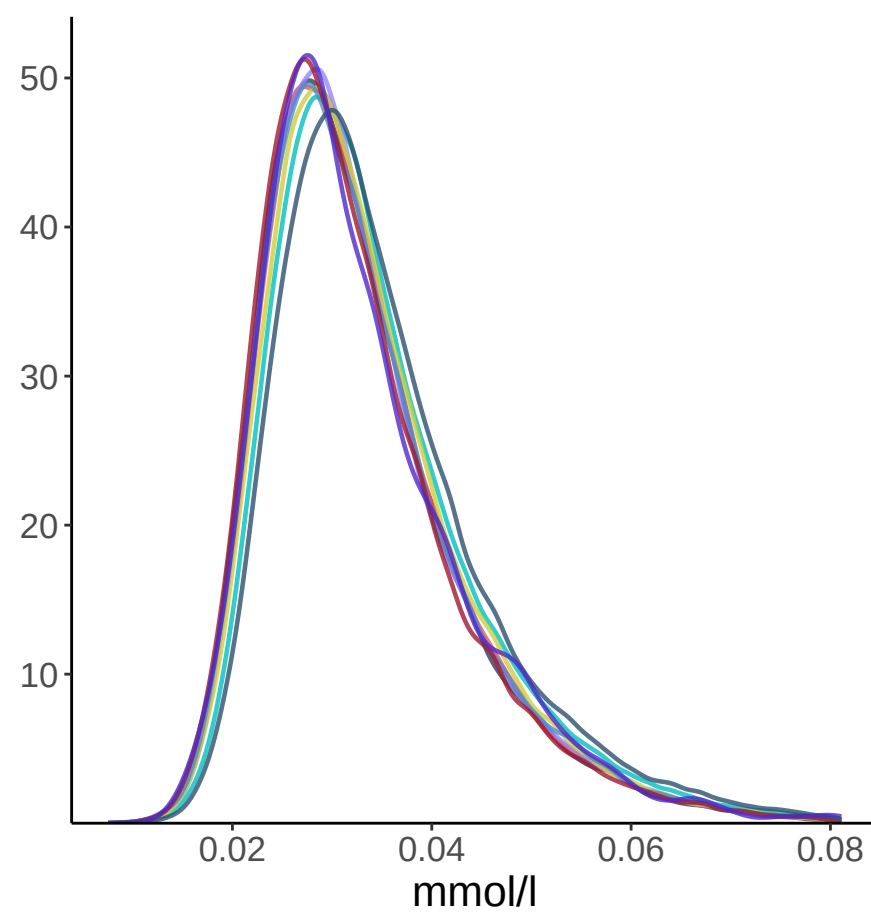
M_LDL_FC

Spectrometer



M_LDL_TG

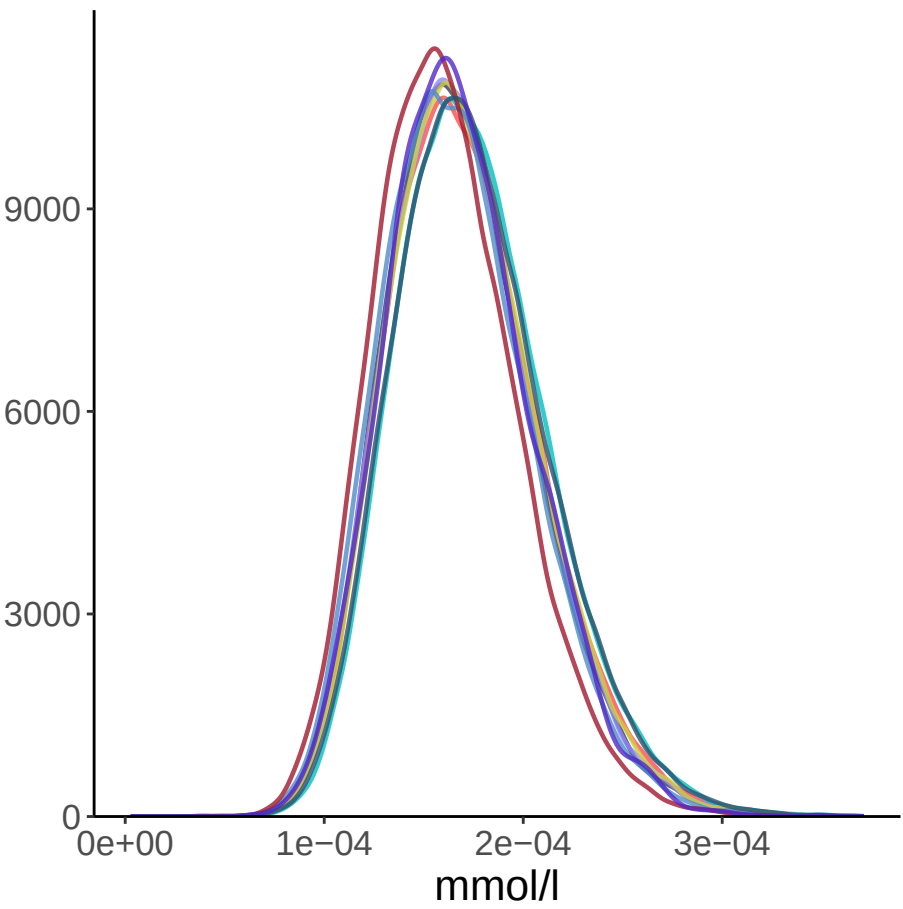
Spectrometer



Small LDL (average diameter 18.7 nm)

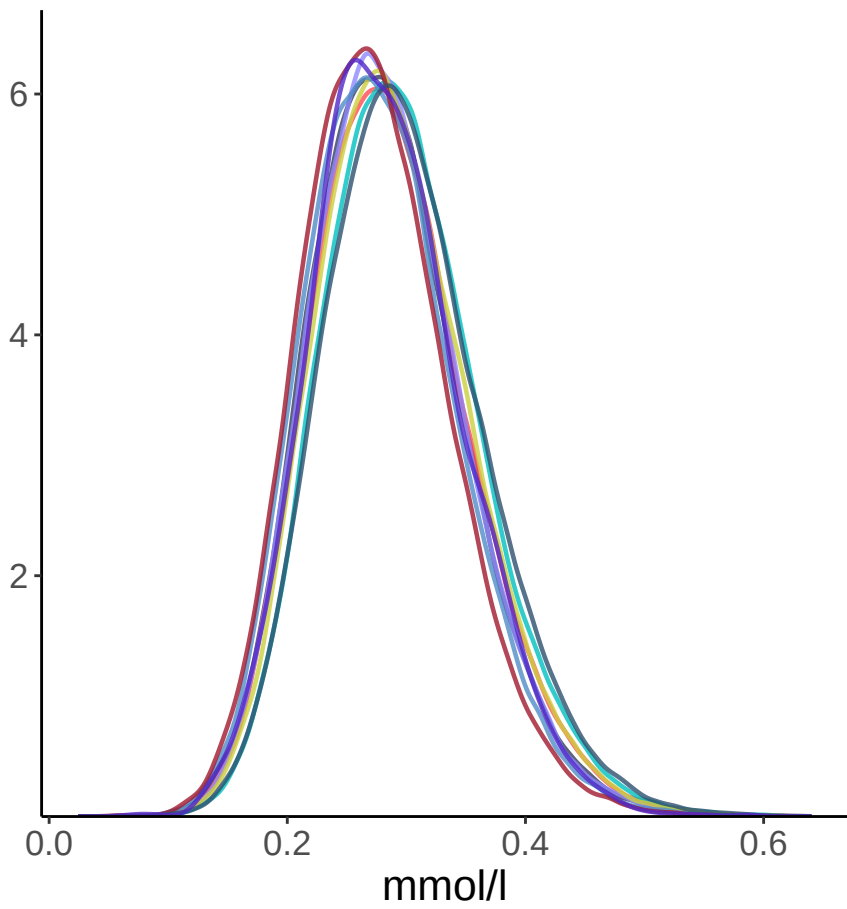
S_LDL_P

Spectrometer



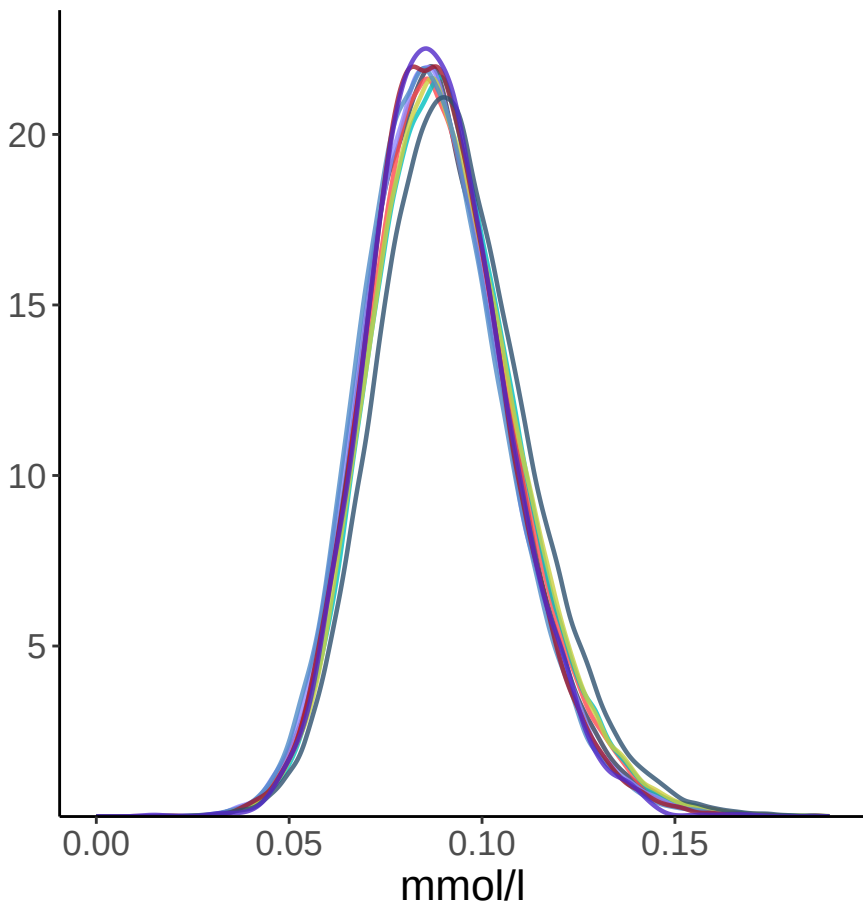
S_LDL_L

Spectrometer



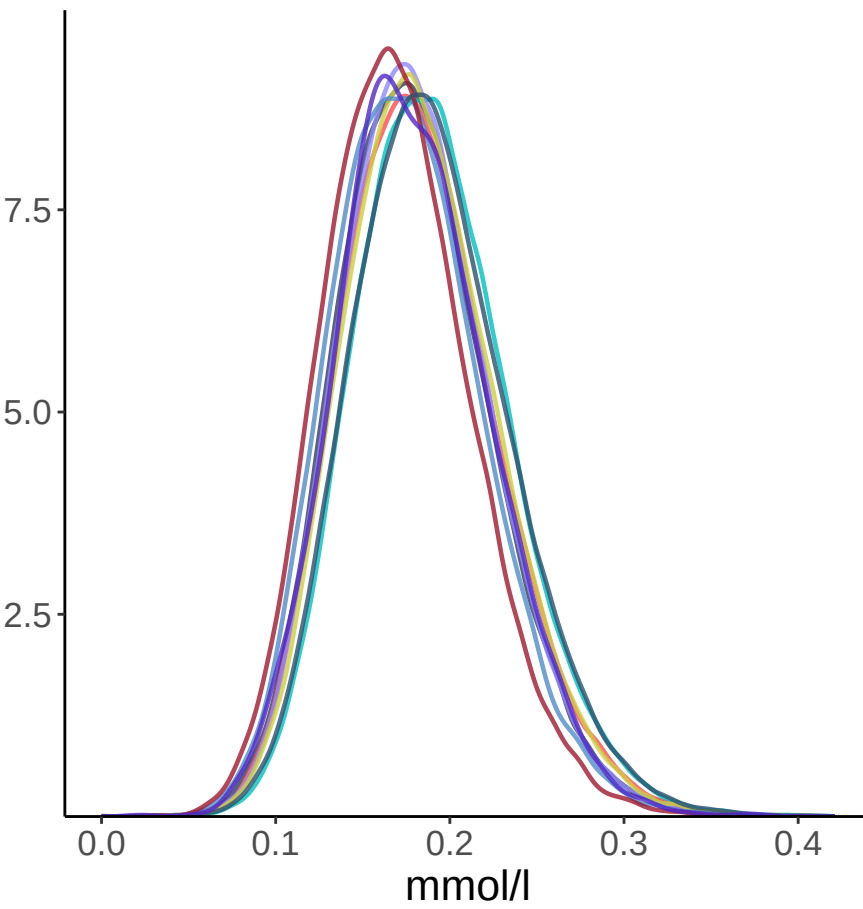
S_LDL_PL

Spectrometer



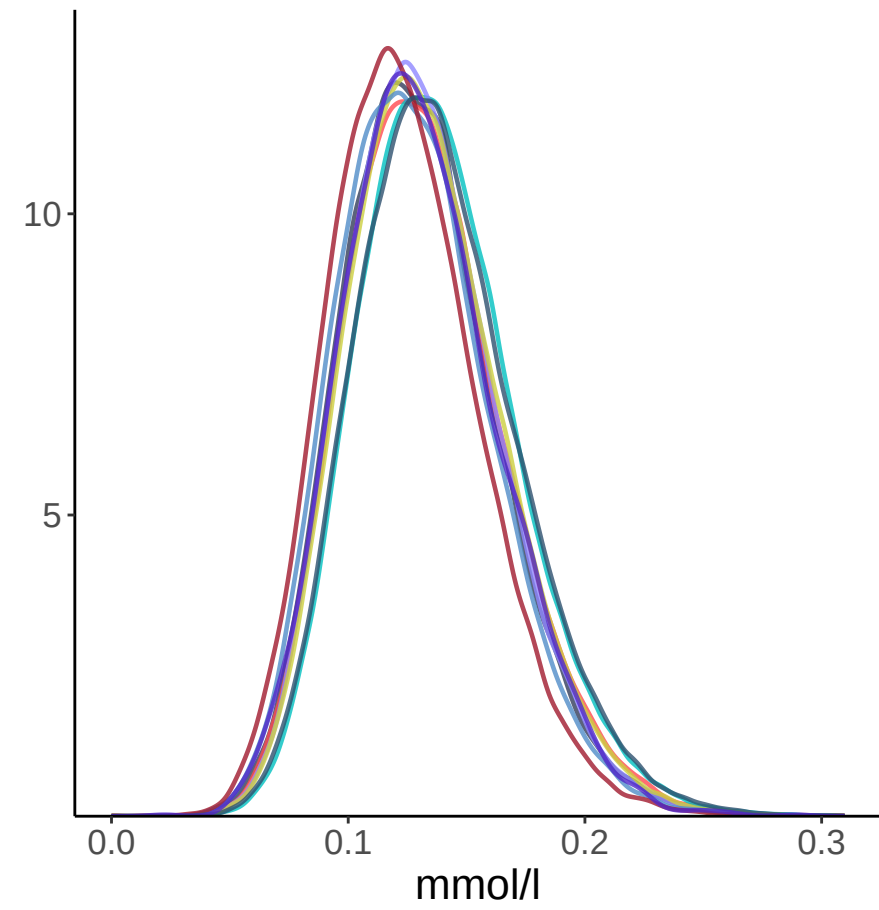
S_LDL_C

Spectrometer



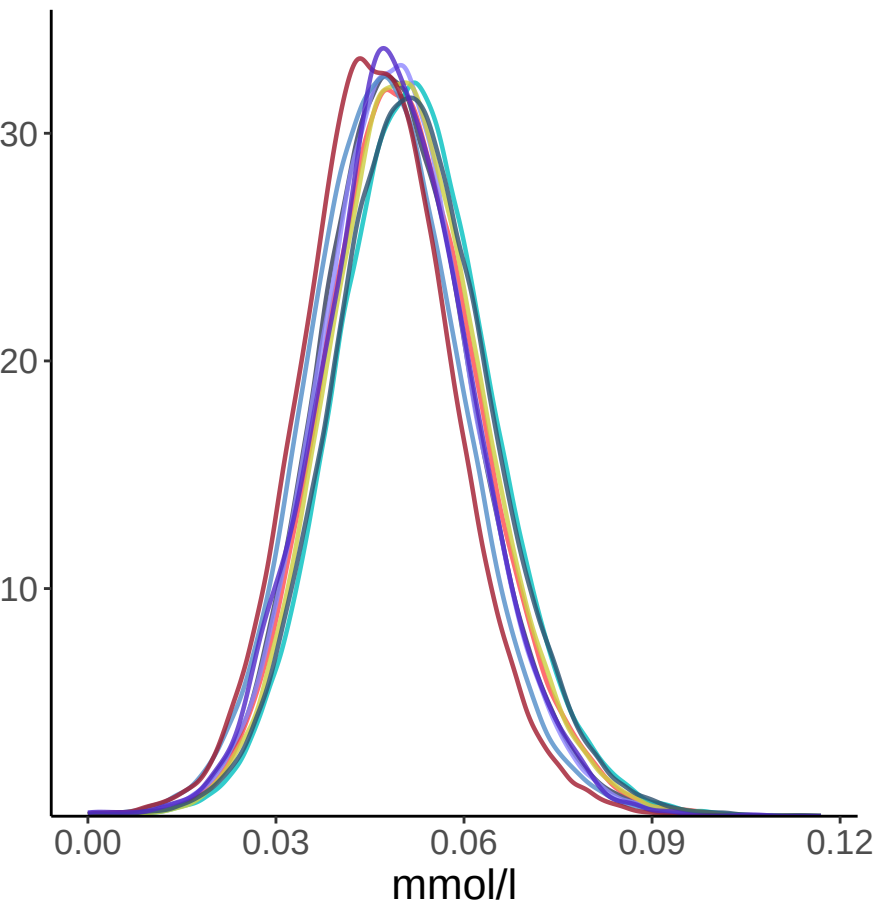
S_LDL_CE

Spectrometer



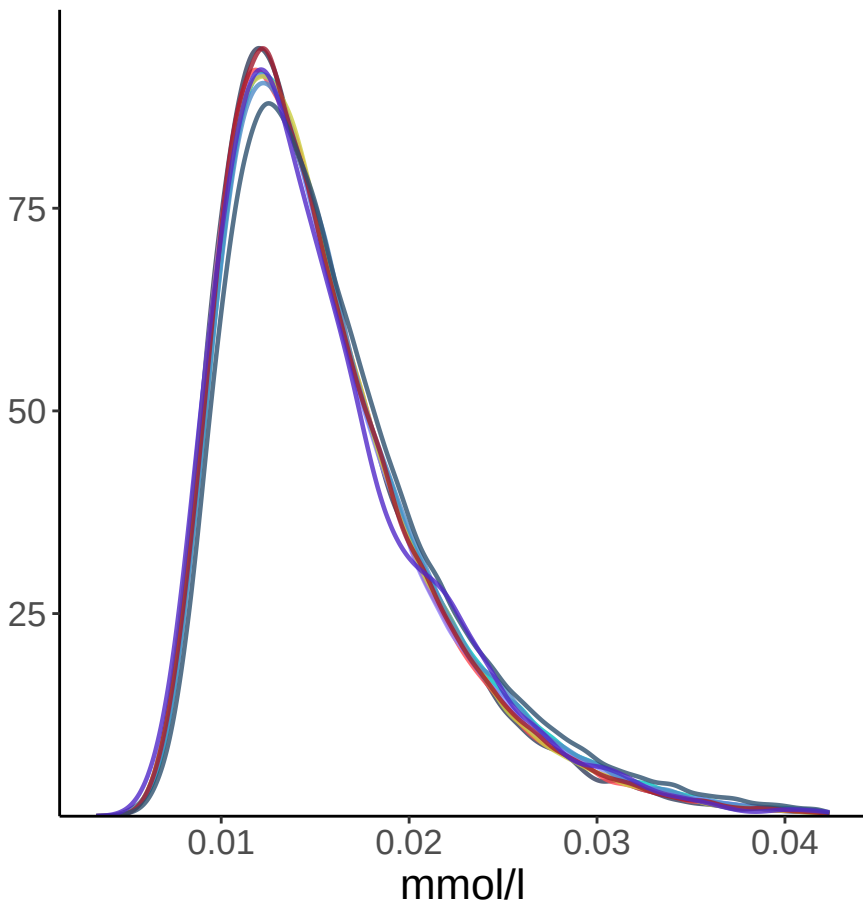
S_LDL_FC

Spectrometer



S_LDL_TG

Spectrometer

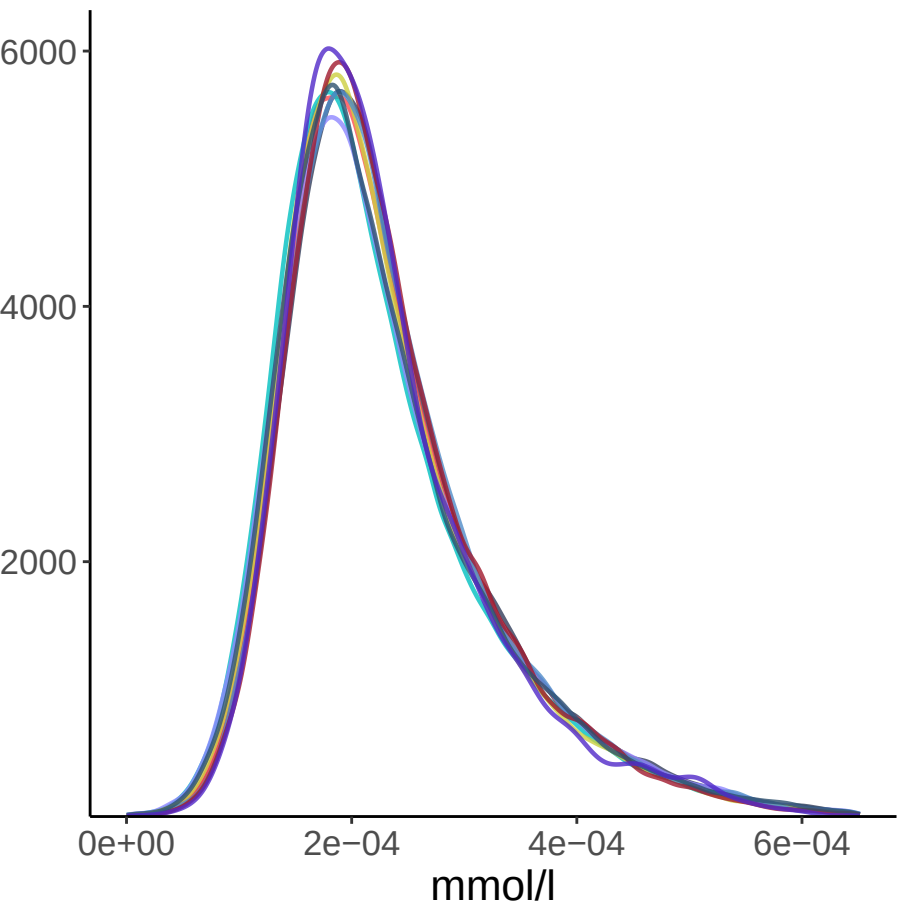


Very large HDL (average diameter 14.3 nm)

XL_HDL_P

Spectrometer

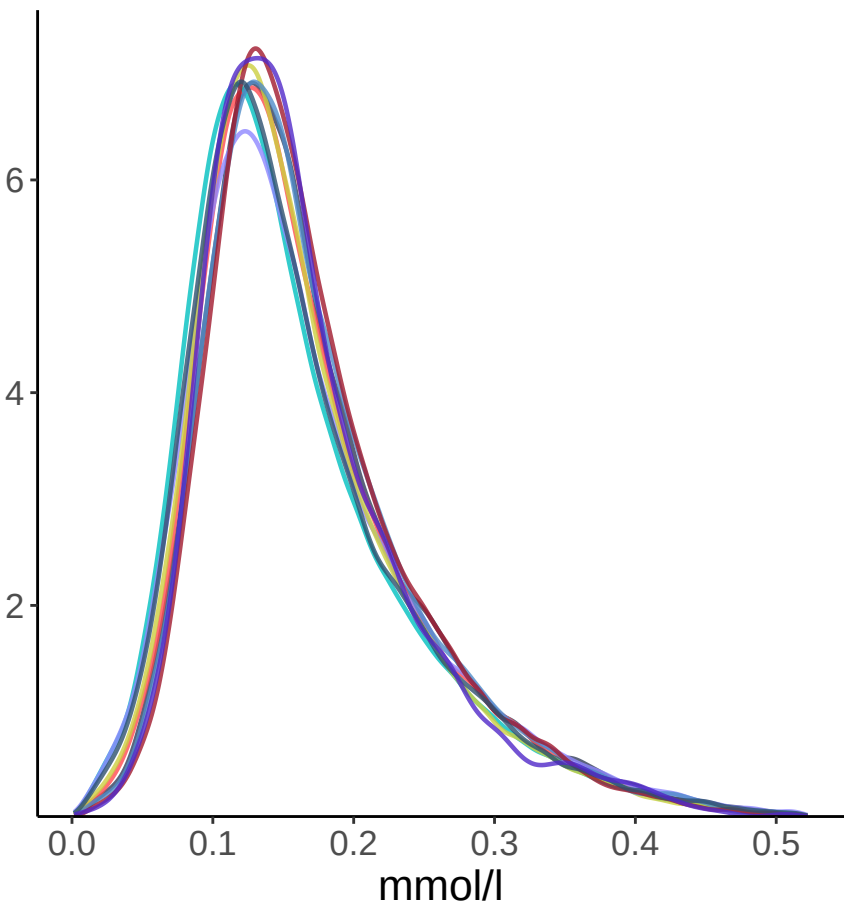
1 2 3 4 5
6 7 8 9



XL_HDL_L

Spectrometer

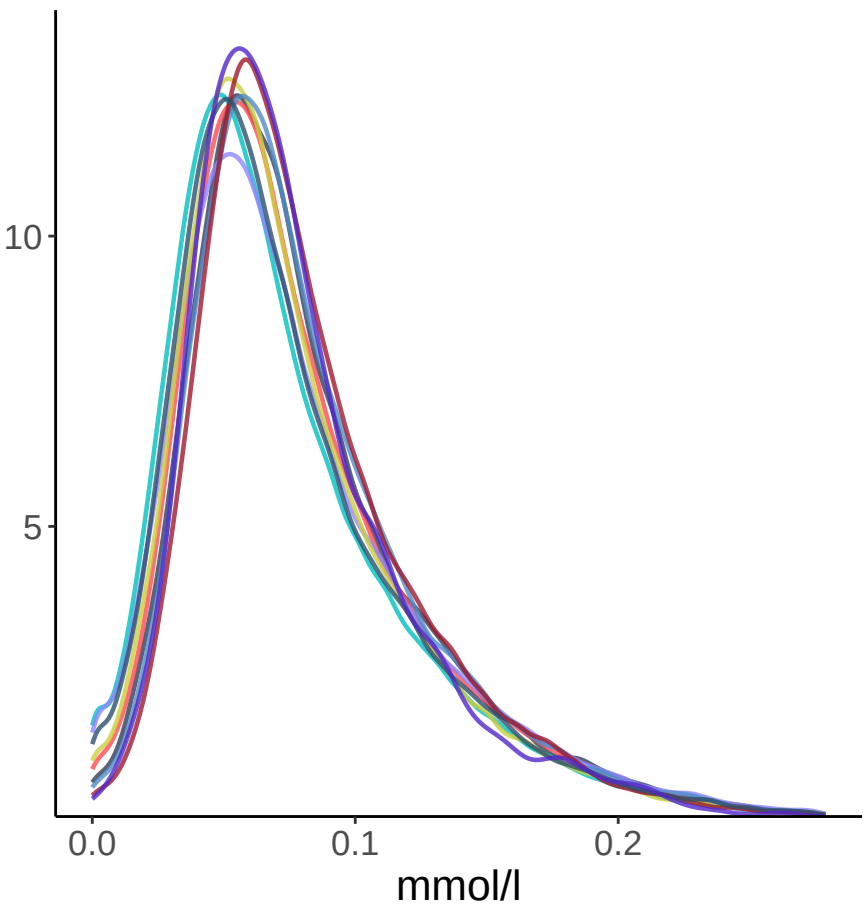
1 2 3 4 5
6 7 8 9



XL_HDL_PL

Spectrometer

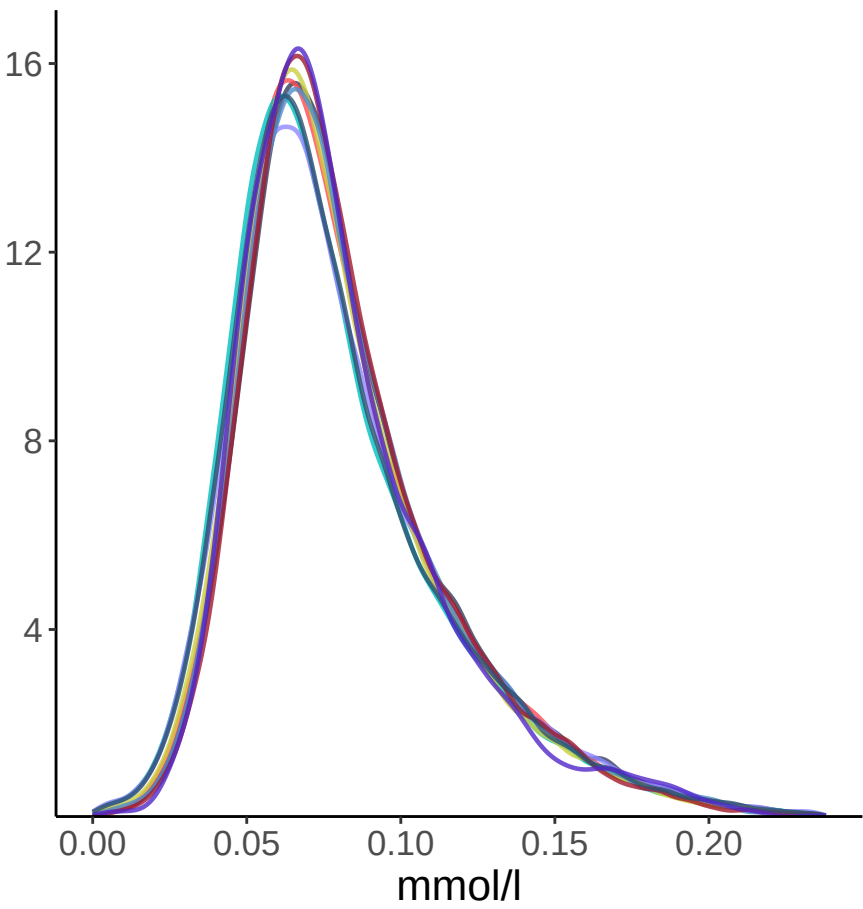
1 2 3 4 5
6 7 8 9



XL_HDL_C

Spectrometer

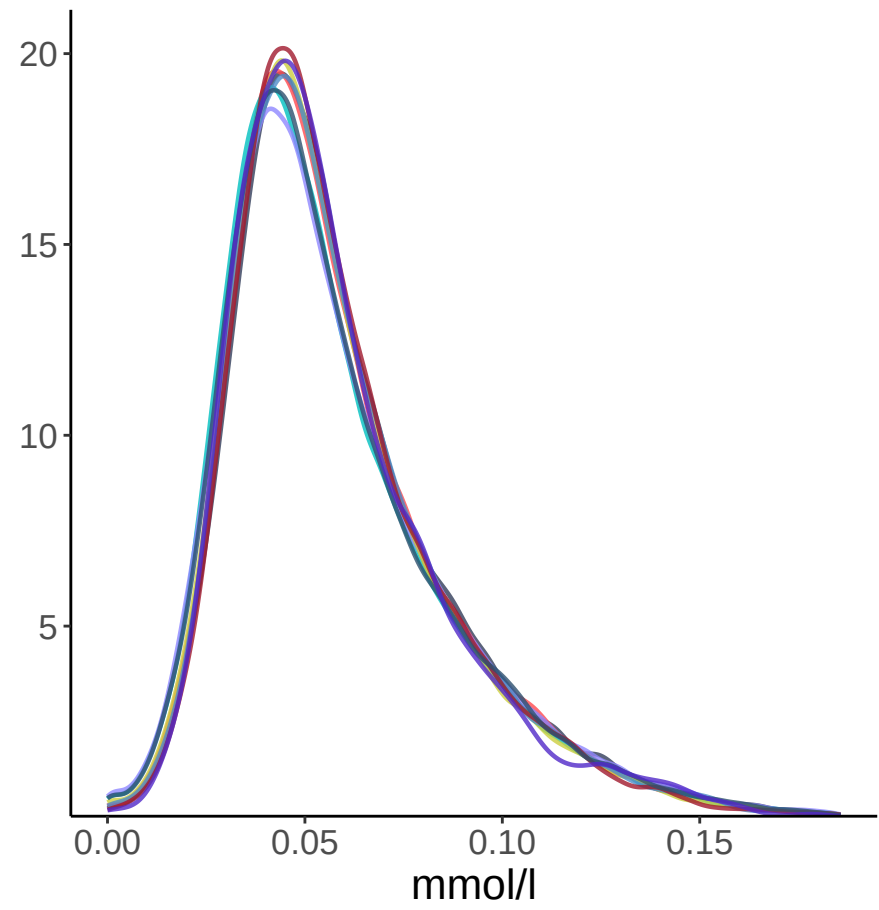
1 2 3 4 5
6 7 8 9



XL_HDL_CE

Spectrometer

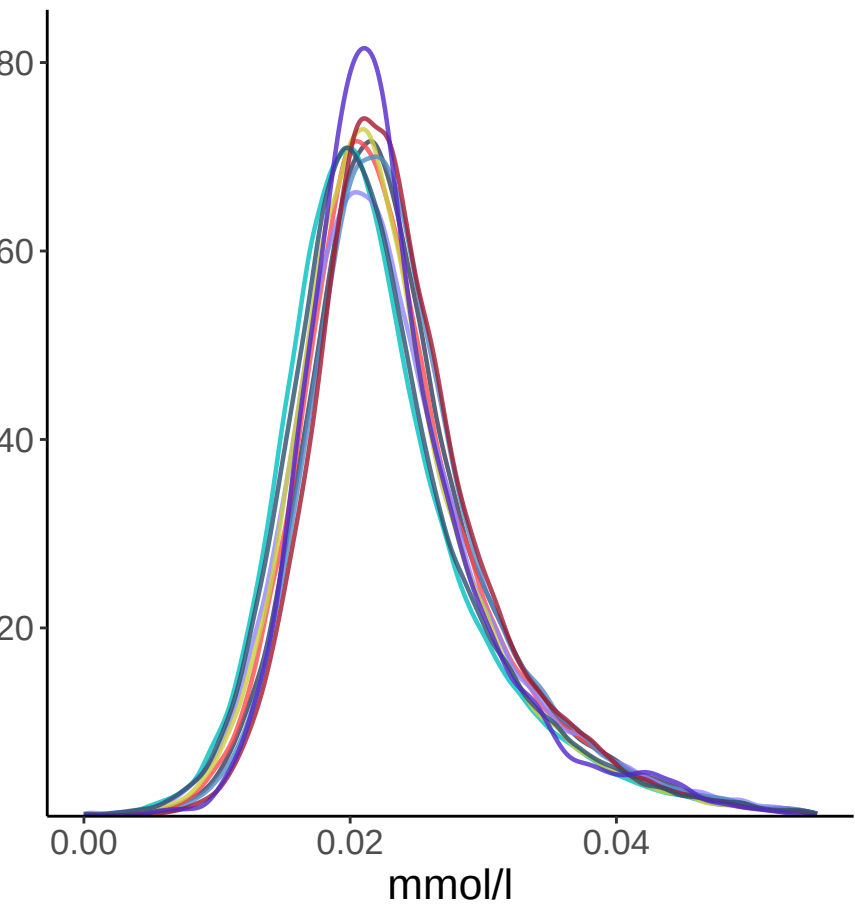
1 2 3 4 5
6 7 8 9



XL_HDL_FC

Spectrometer

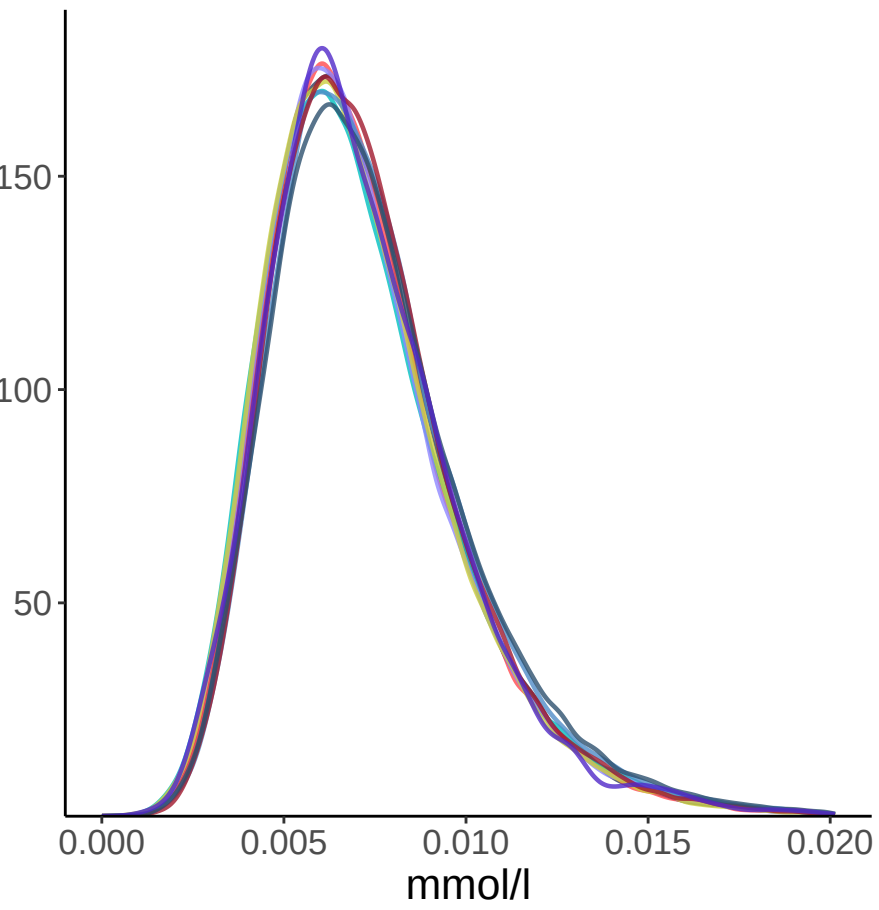
1 2 3 4 5
6 7 8 9



XL_HDL_TG

Spectrometer

1 2 3 4 5
6 7 8 9

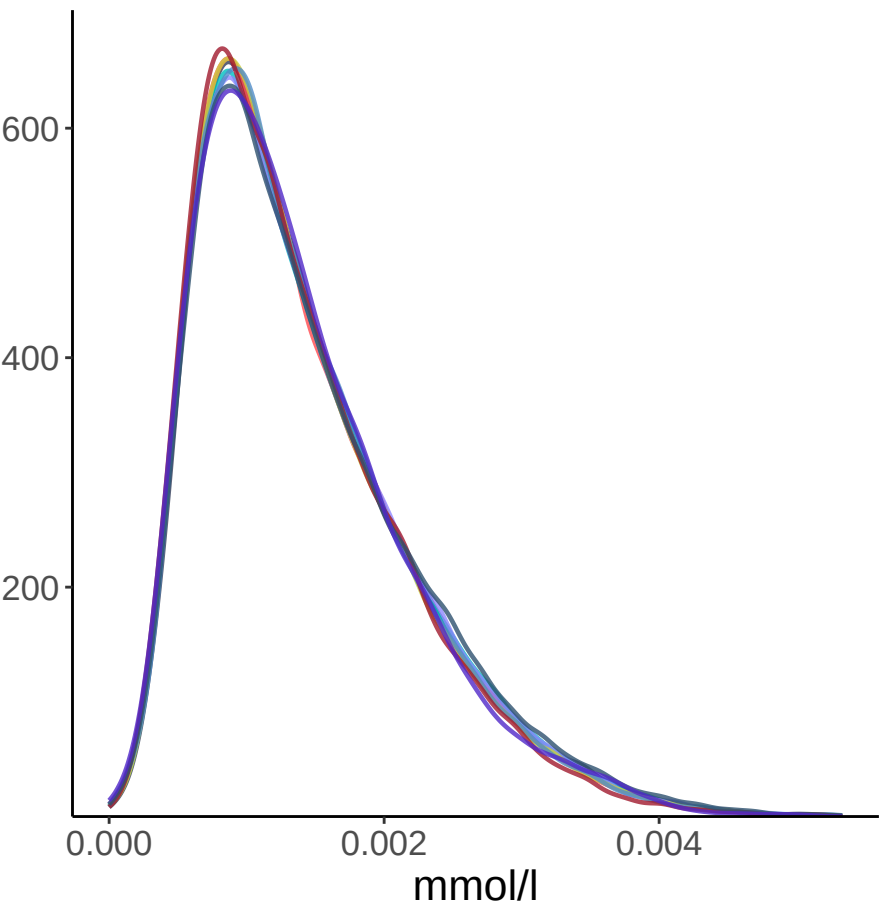


Large HDL (average diameter 12.1 nm)

L_HDL_P

Spectrometer

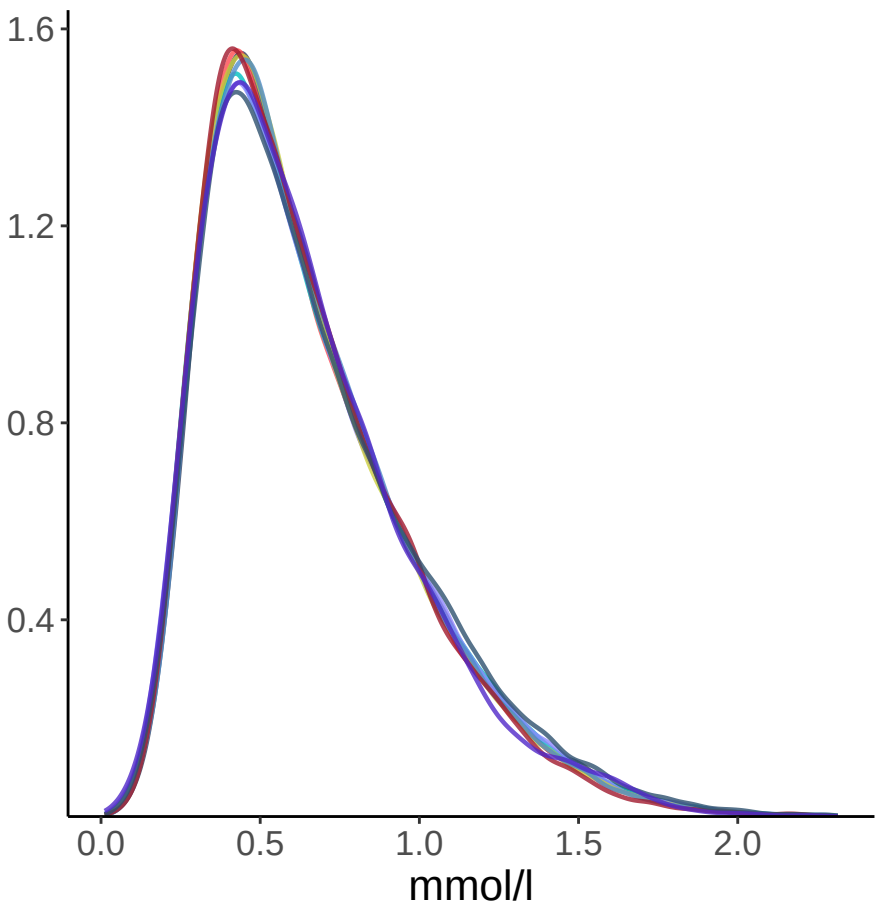
1 2 3 4 5
6 7 8 9



L_HDL_L

Spectrometer

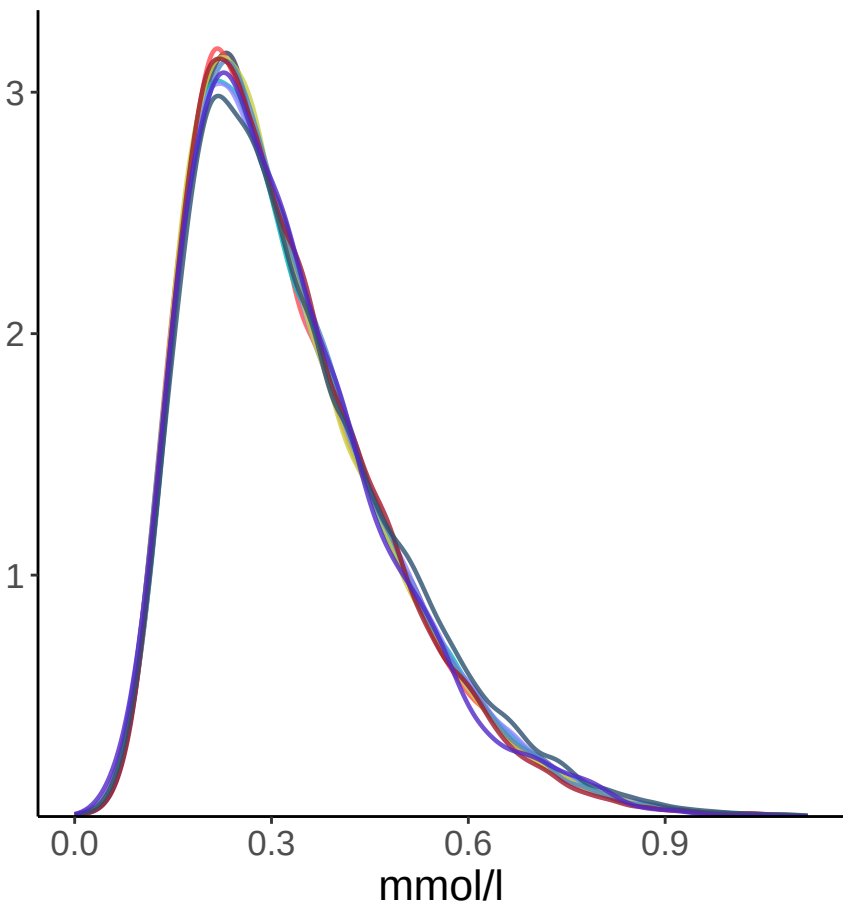
1 2 3 4 5
6 7 8 9



L_HDL_PL

Spectrometer

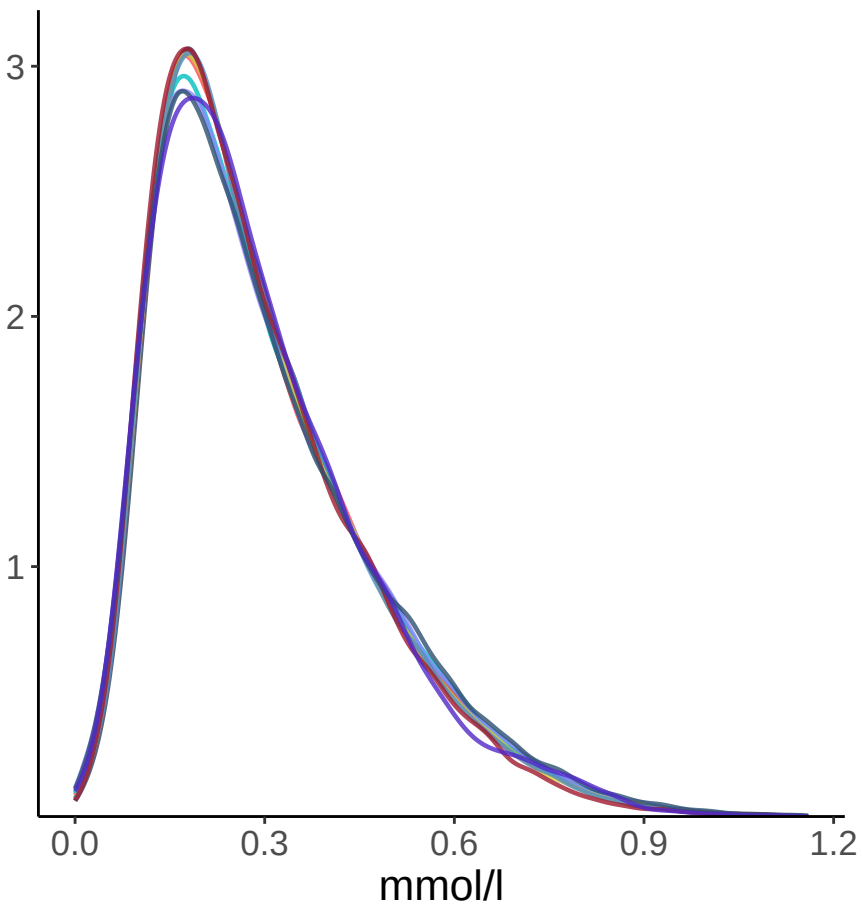
1 2 3 4 5
6 7 8 9



L_HDL_C

Spectrometer

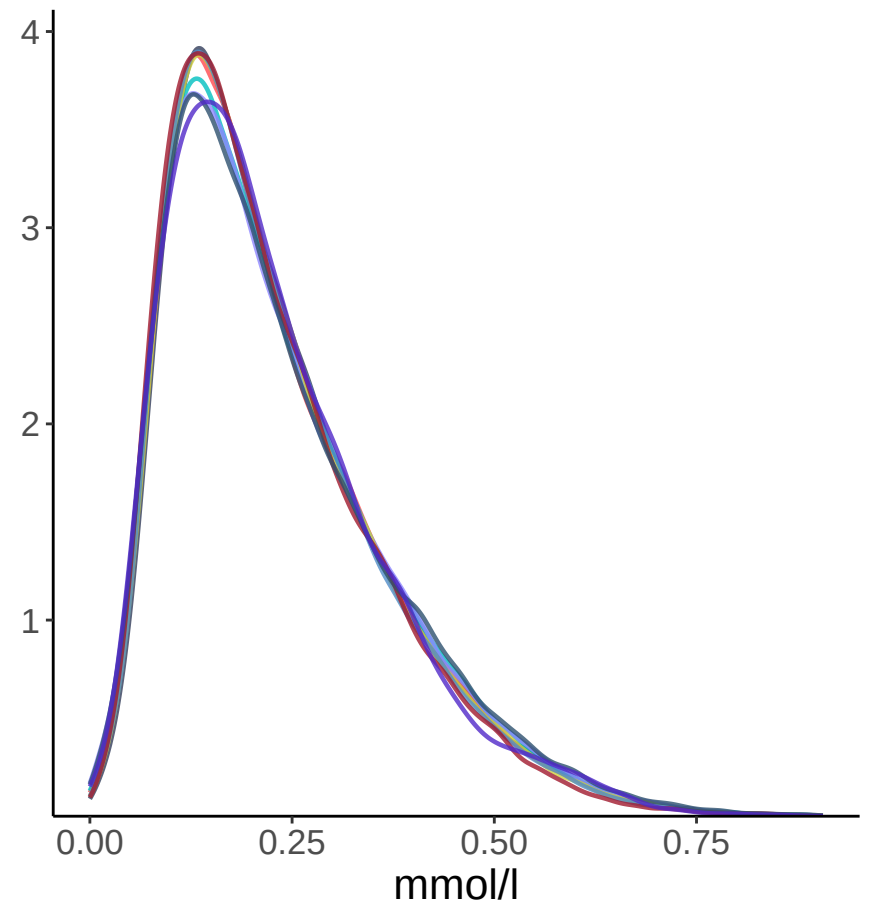
1 2 3 4 5
6 7 8 9



L_HDL_CE

Spectrometer

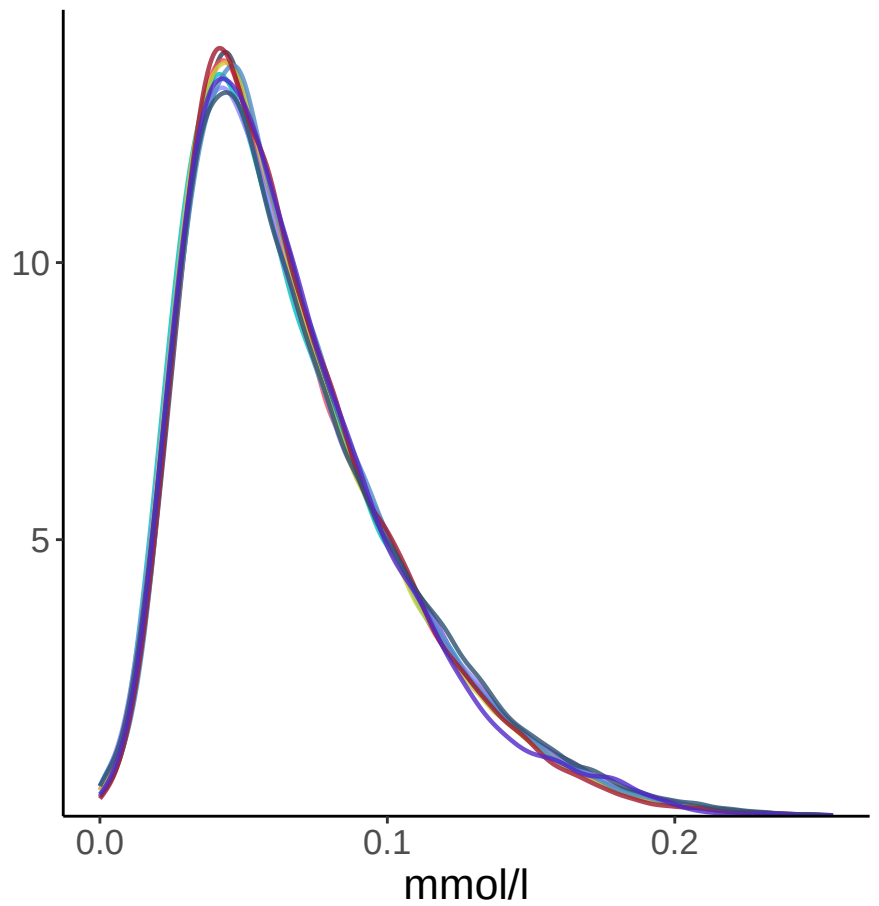
1 2 3 4 5
6 7 8 9



L_HDL_FC

Spectrometer

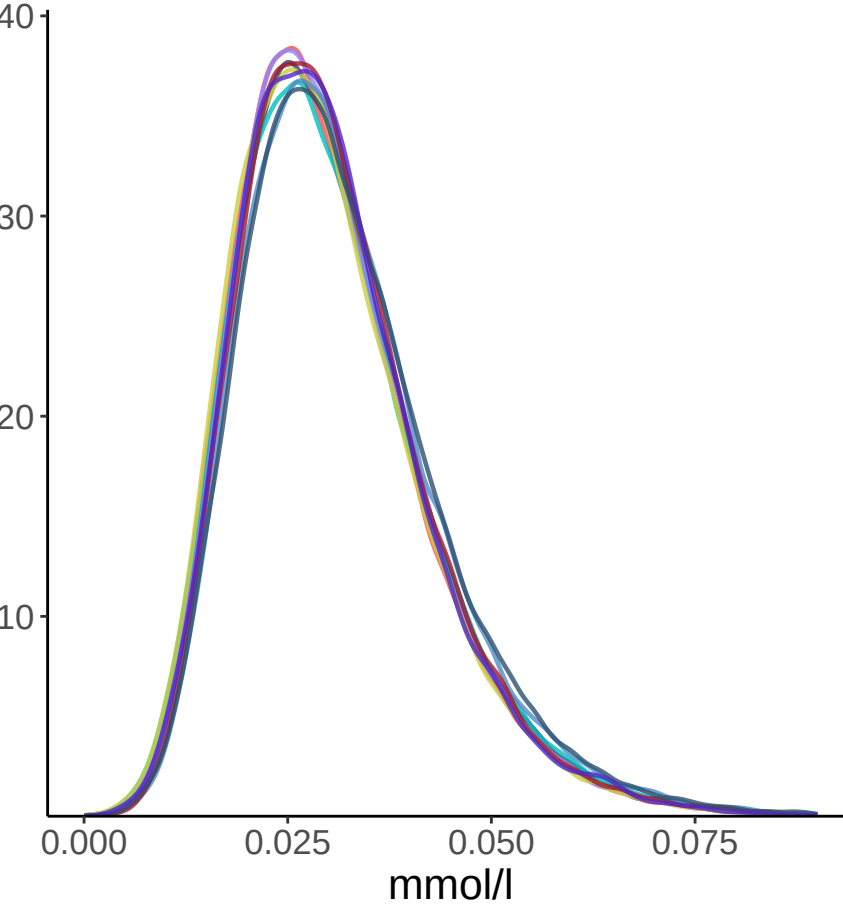
1 2 3 4 5
6 7 8 9



L_HDL_TG

Spectrometer

1 2 3 4 5
6 7 8 9

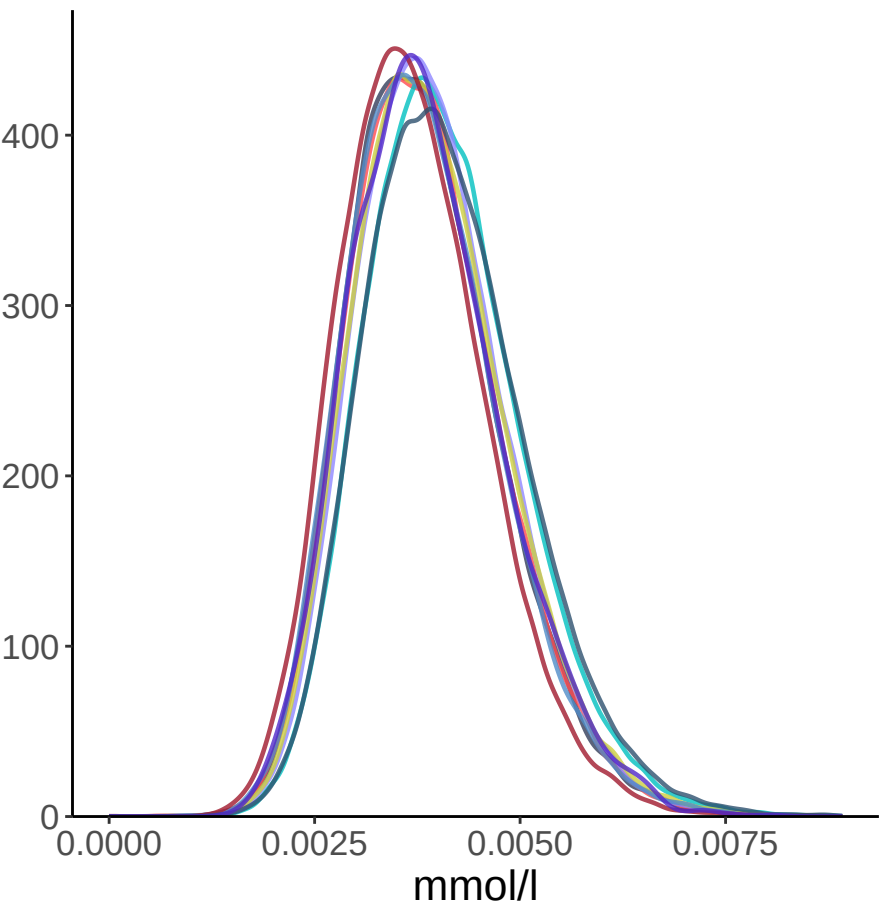


Medium HDL (average diameter 10.9 nm)

M_HDL_P

Spectrometer

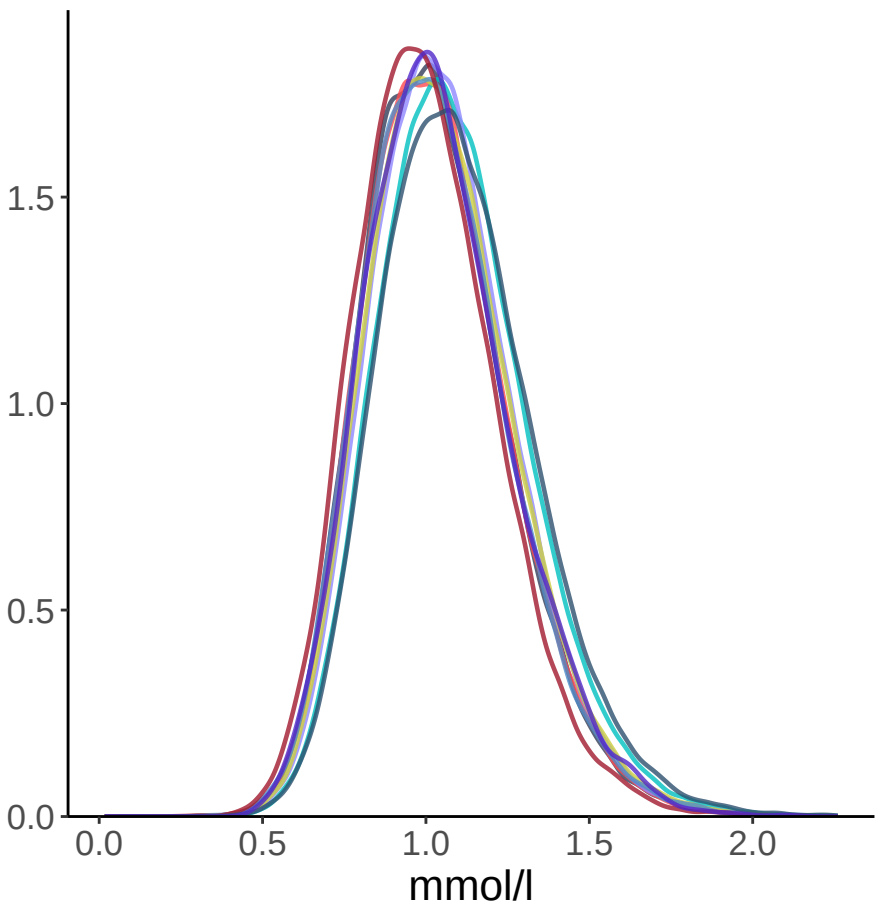
1 2 3 4 5
6 7 8 9



M_HDL_L

Spectrometer

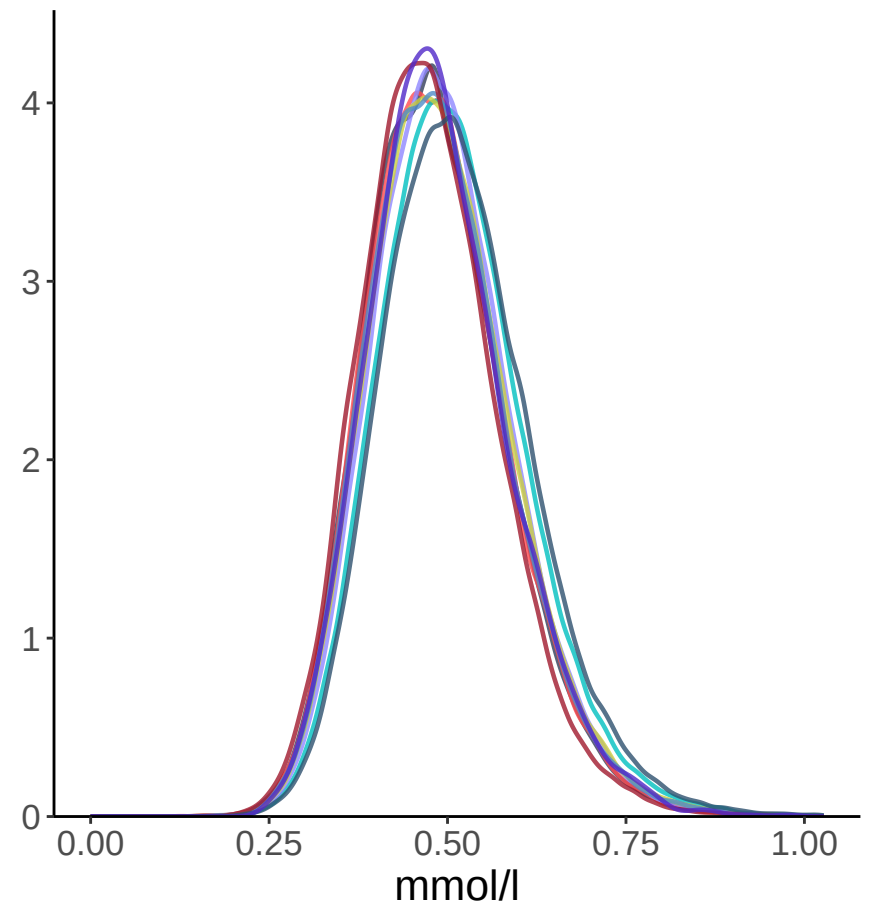
1 2 3 4 5
6 7 8 9



M_HDL_PL

Spectrometer

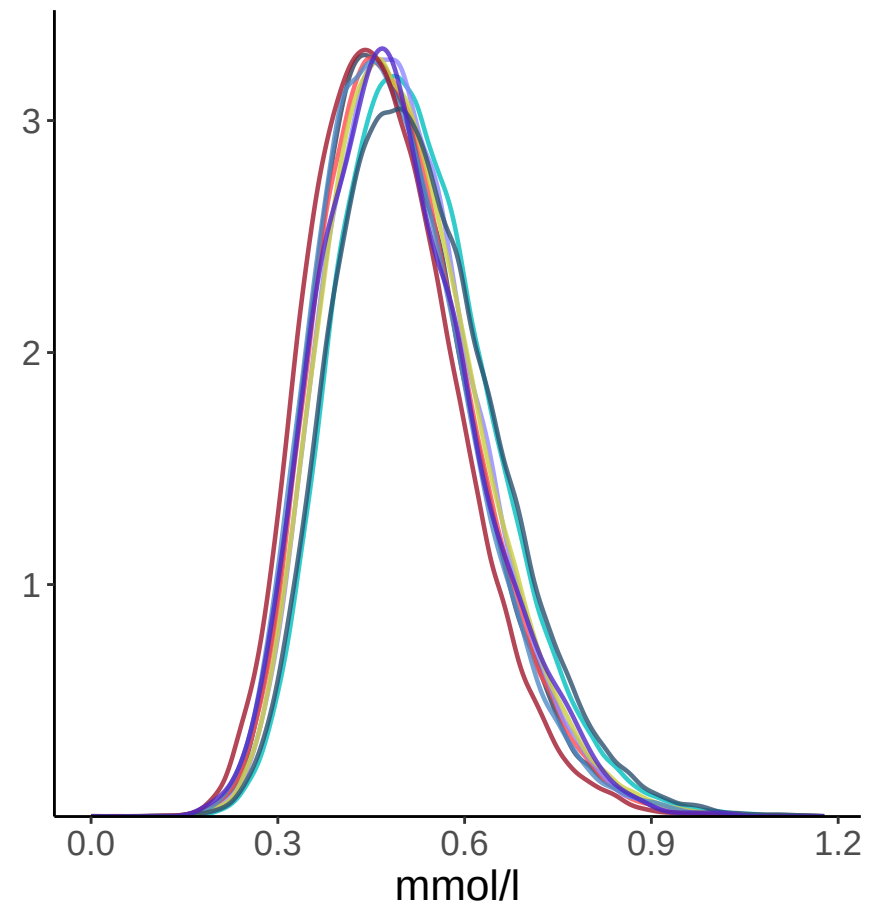
1 2 3 4 5
6 7 8 9



M_HDL_C

Spectrometer

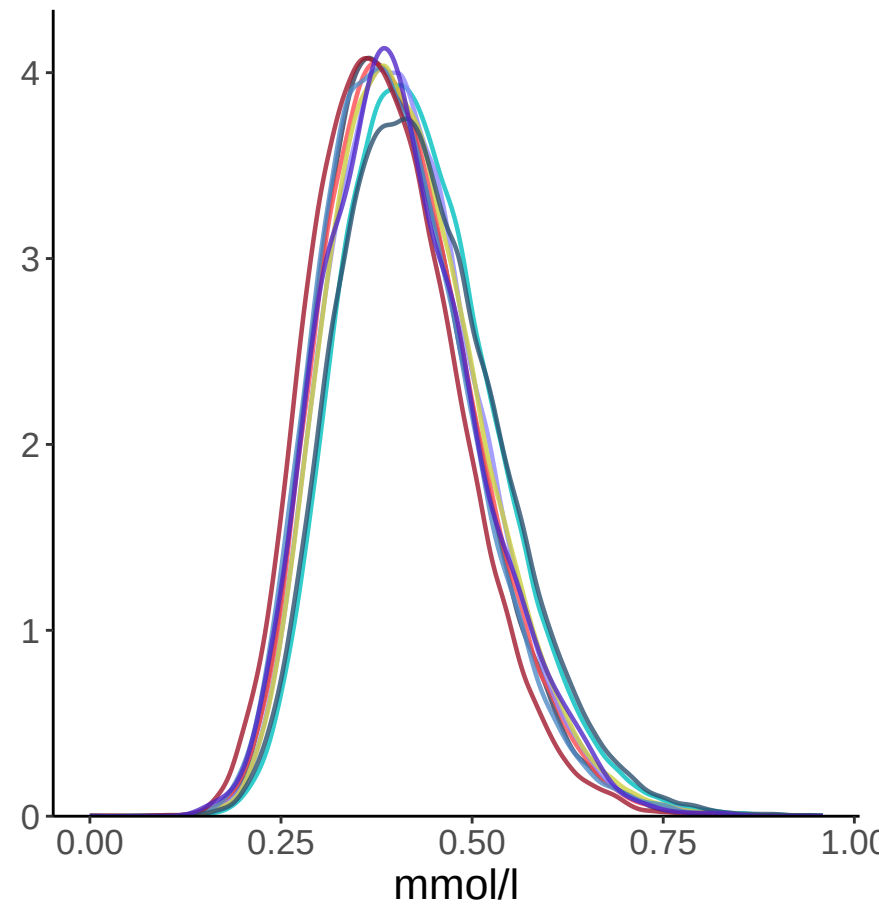
1 2 3 4 5
6 7 8 9



M_HDL_CE

Spectrometer

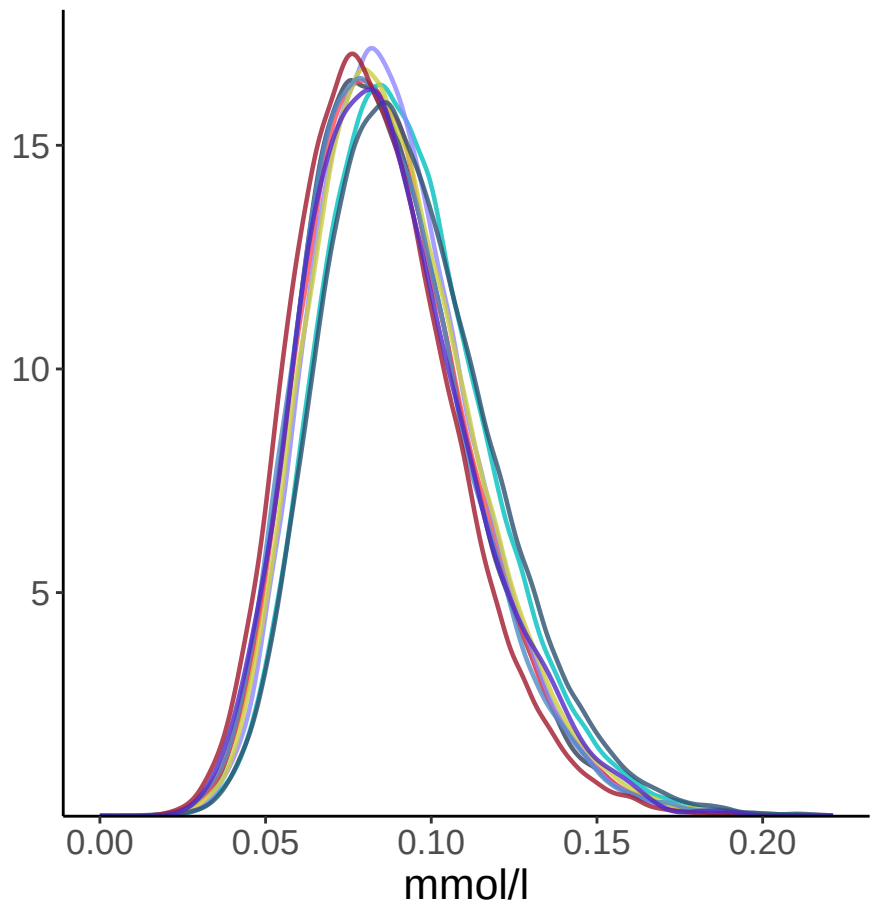
1 2 3 4 5
6 7 8 9



M_HDL_FC

Spectrometer

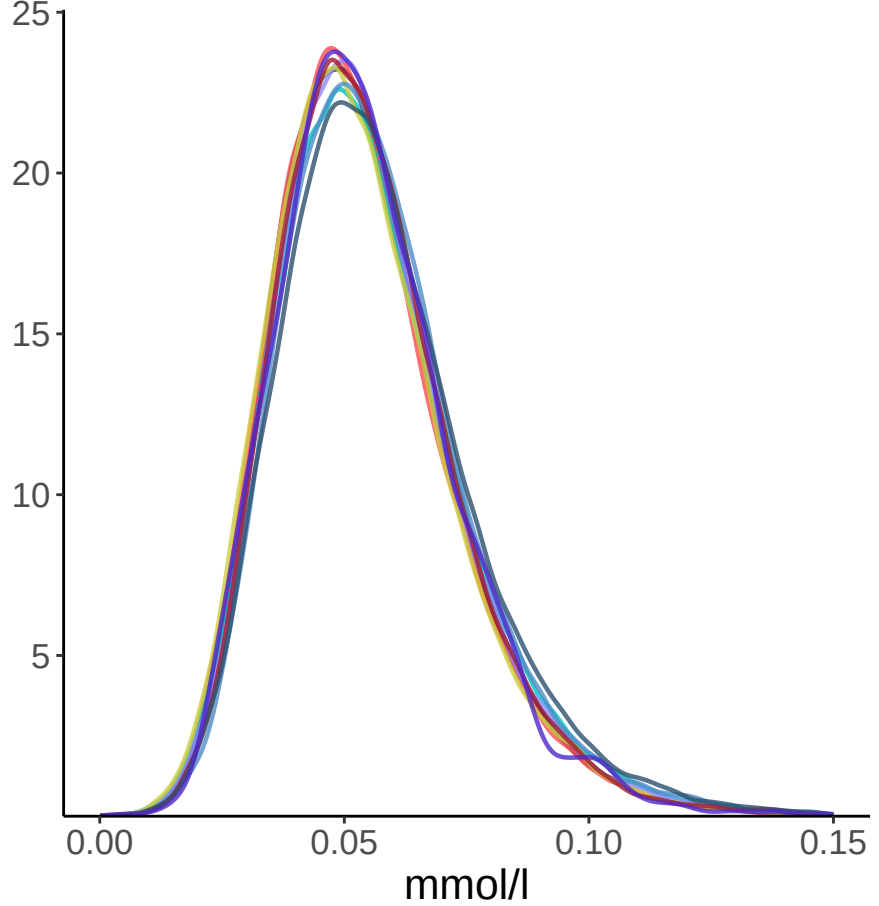
1 2 3 4 5
6 7 8 9



M_HDL_TG

Spectrometer

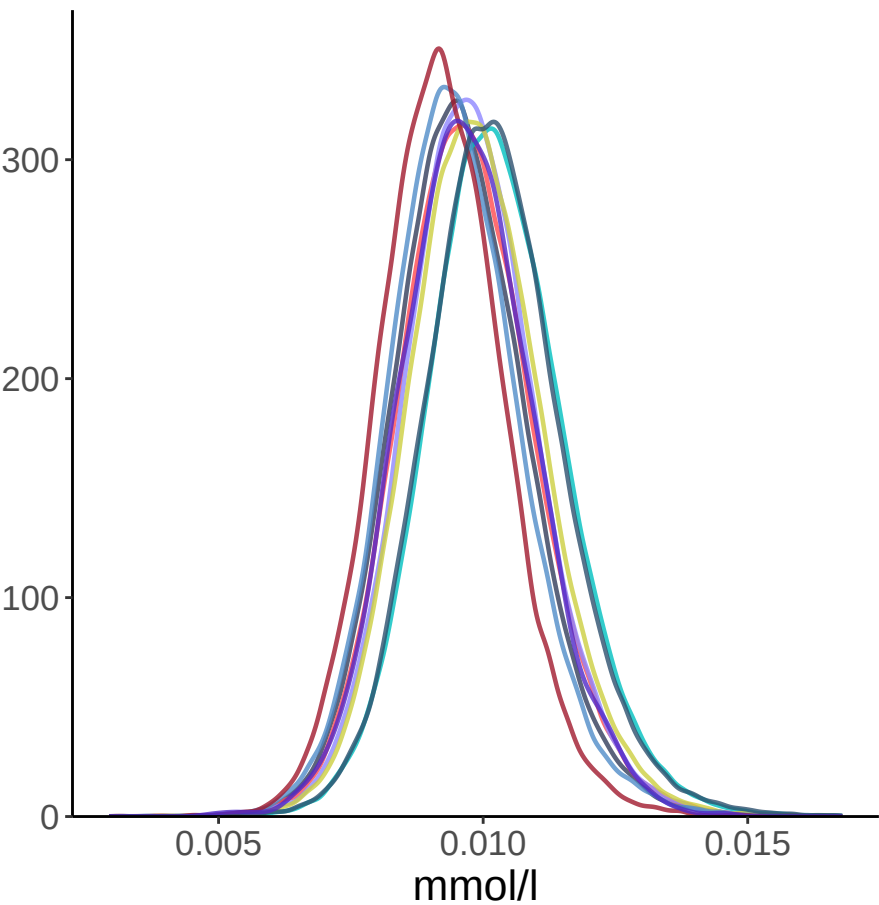
1 2 3 4 5
6 7 8 9



Small HDL (average diameter 8.7 nm)

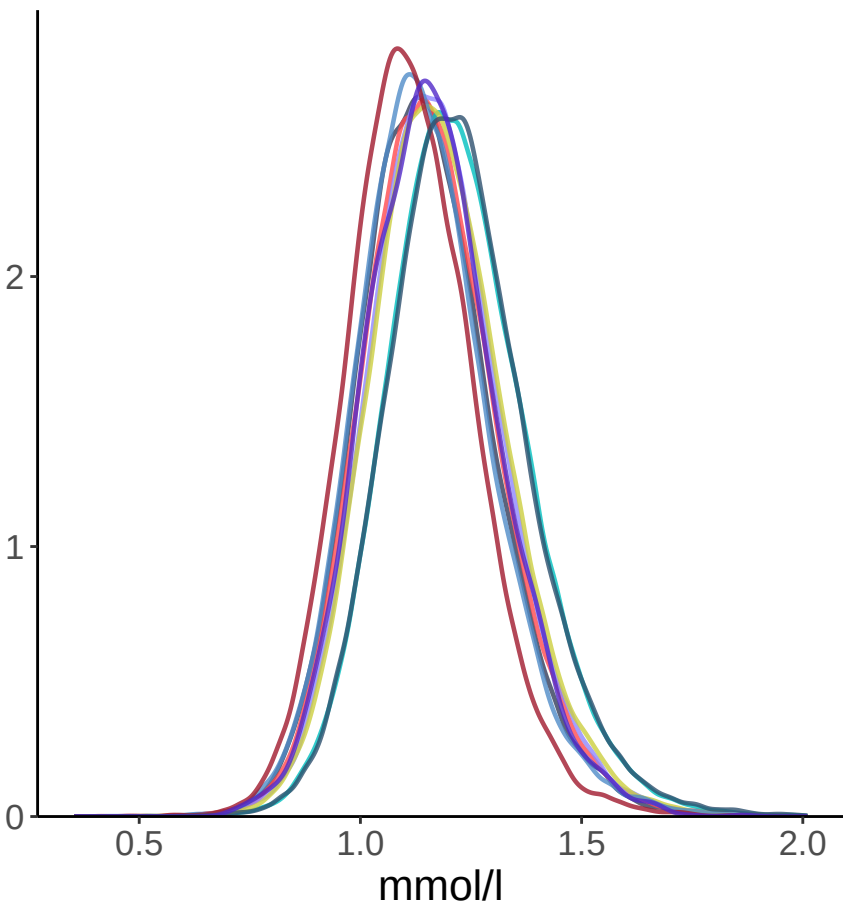
S_HDL_P

Spectrometer



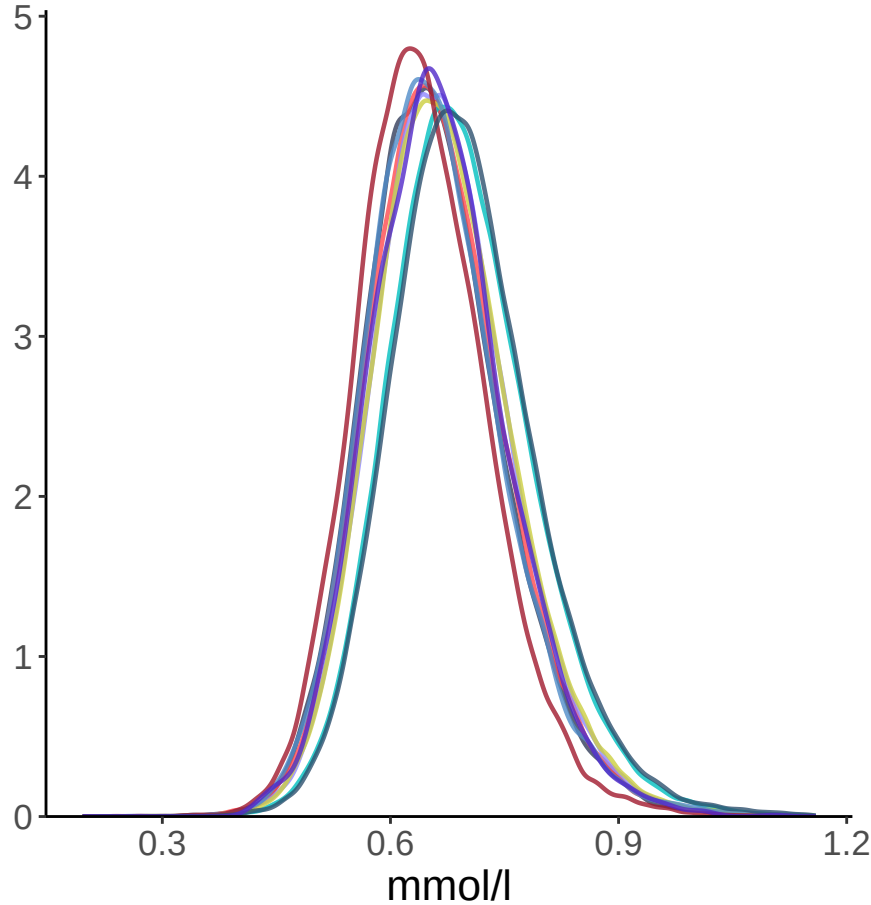
S_HDL_L

Spectrometer



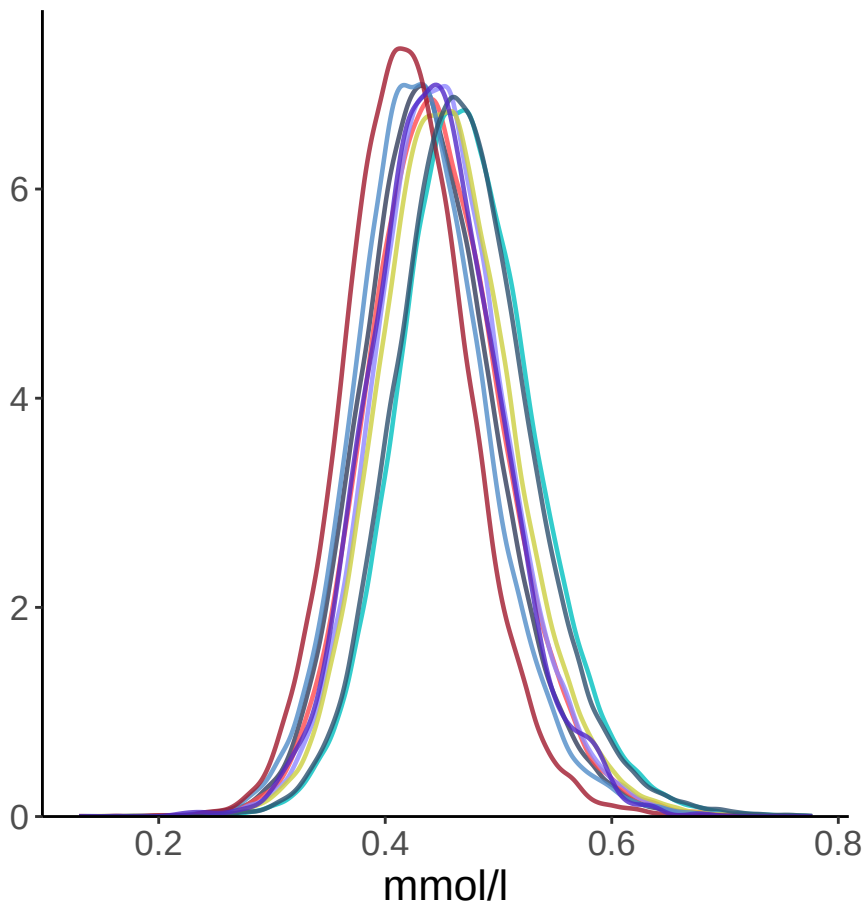
S_HDL_PL

Spectrometer



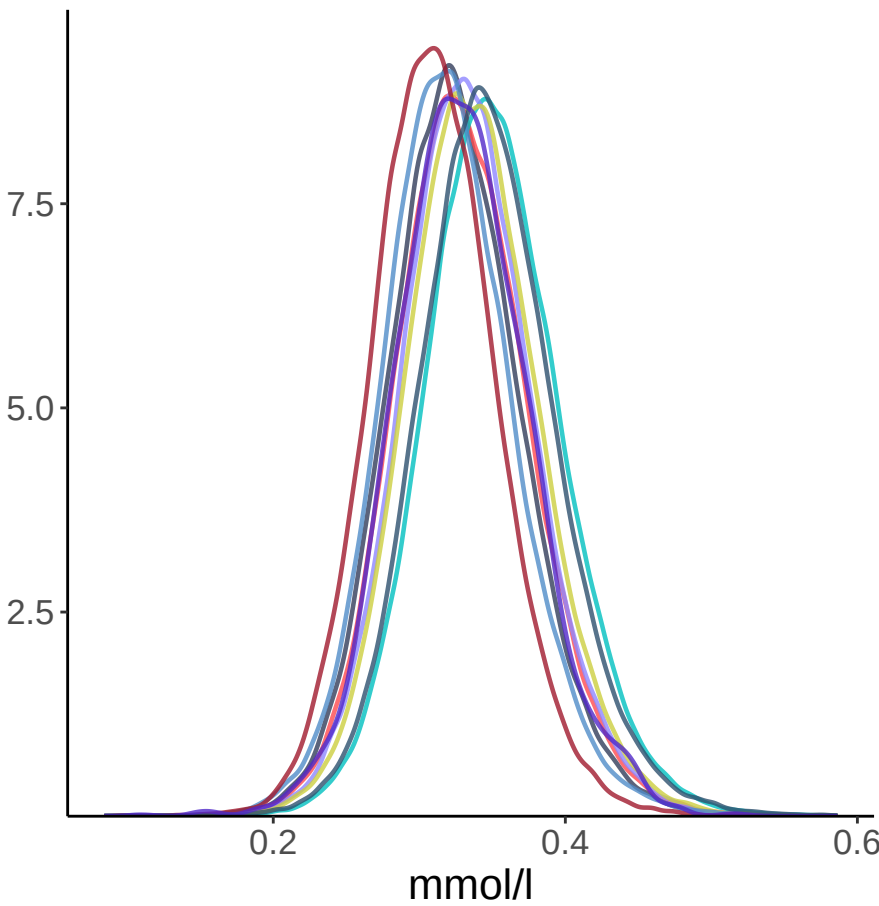
S_HDL_C

Spectrometer



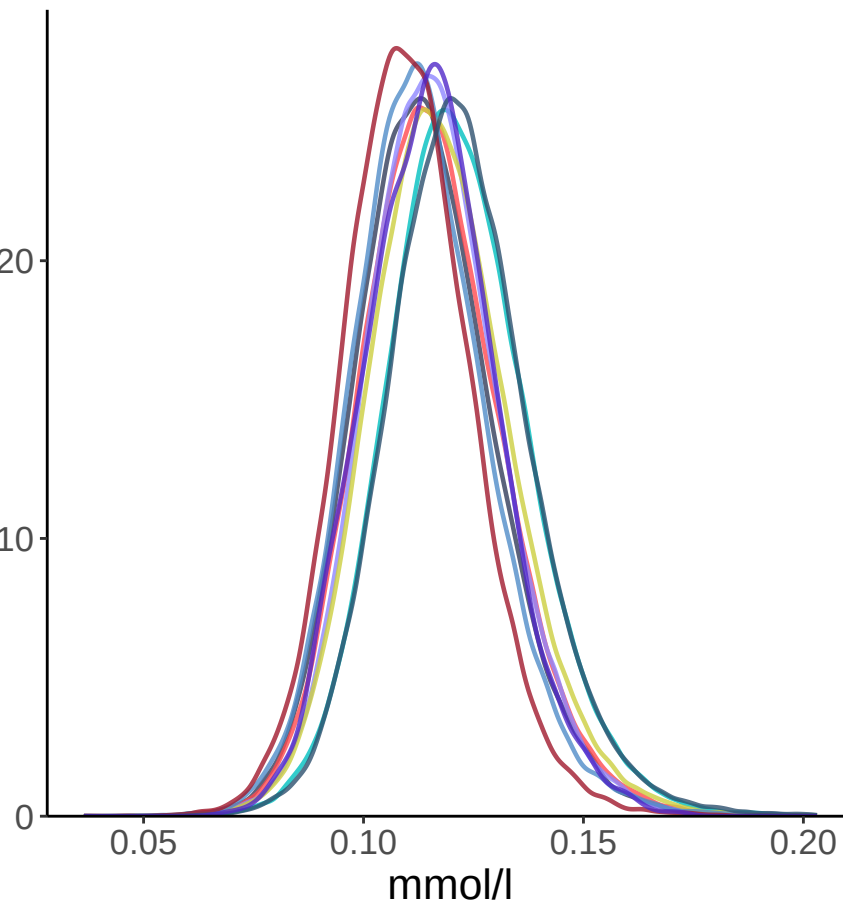
S_HDL_CE

Spectrometer



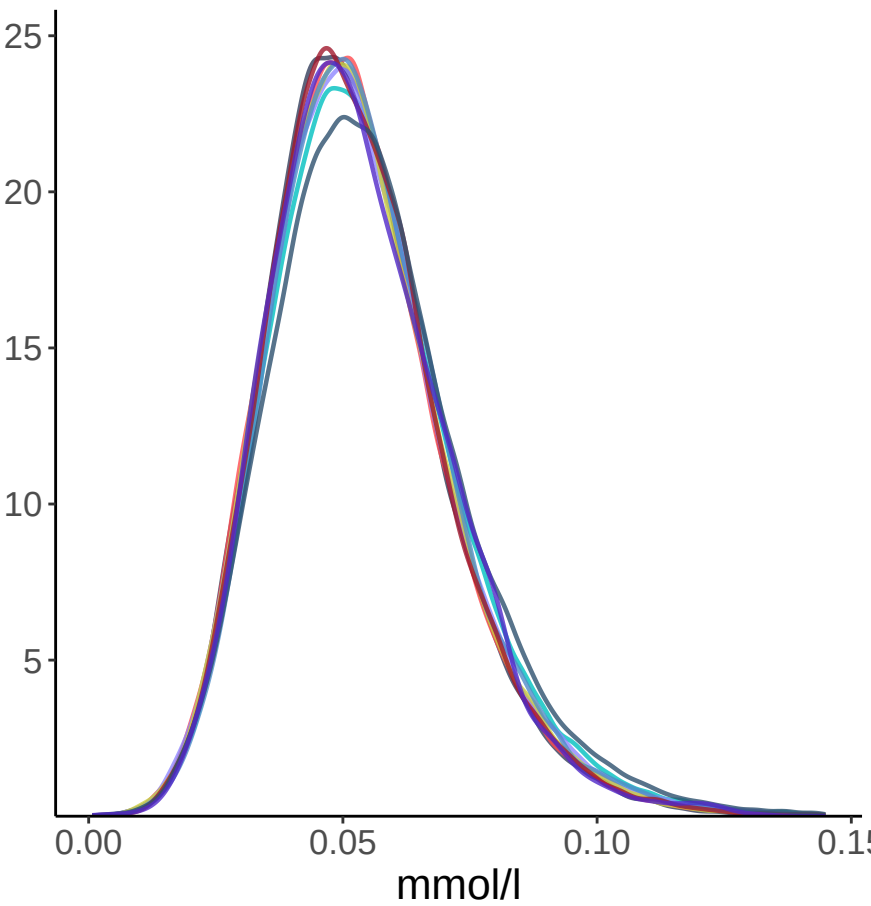
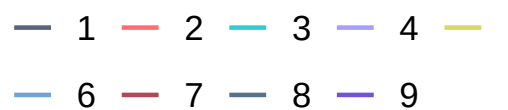
S_HDL_FC

Spectrometer

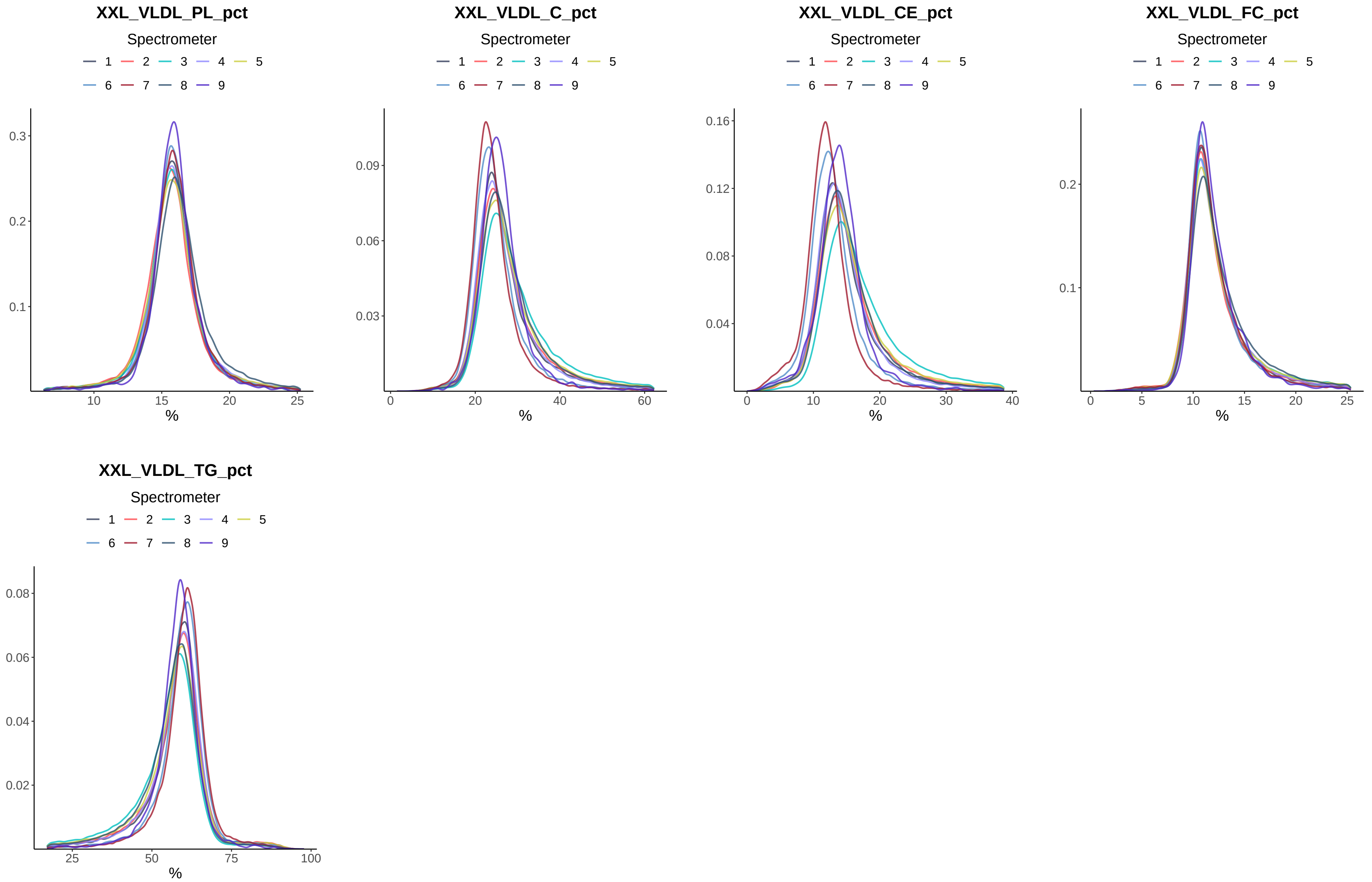


S_HDL_TG

Spectrometer



Chylomicrons and extremely large VLDL ratios

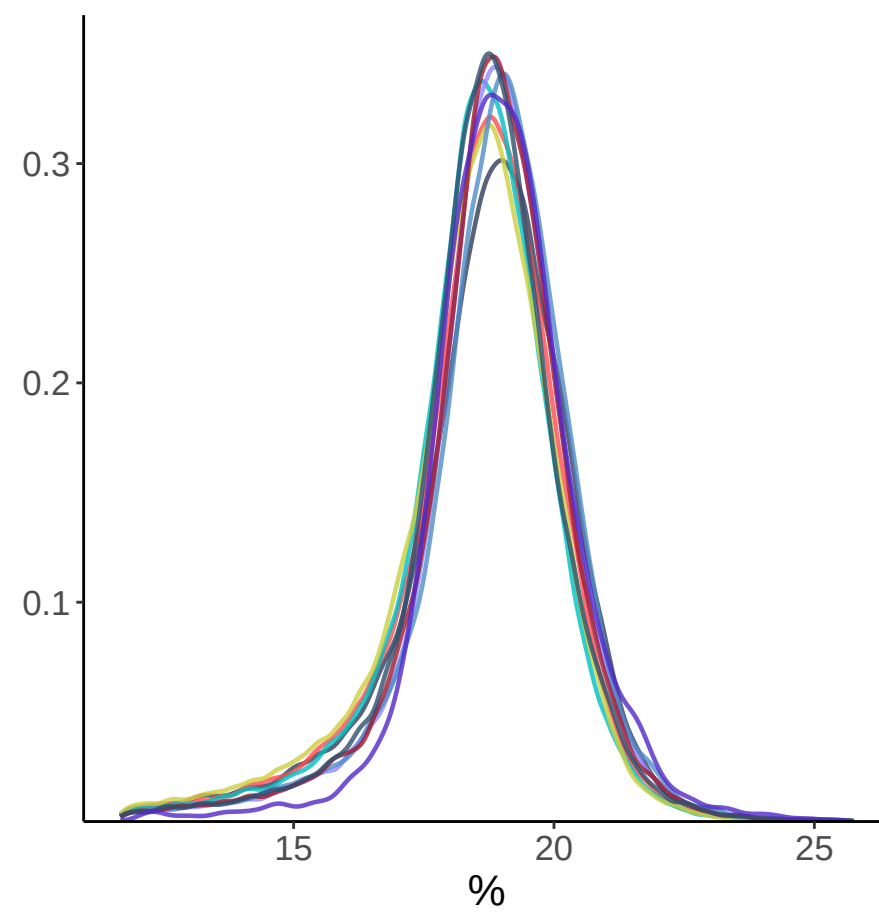


Very large VLDL ratios

XL_VLDL_PL_pct

Spectrometer

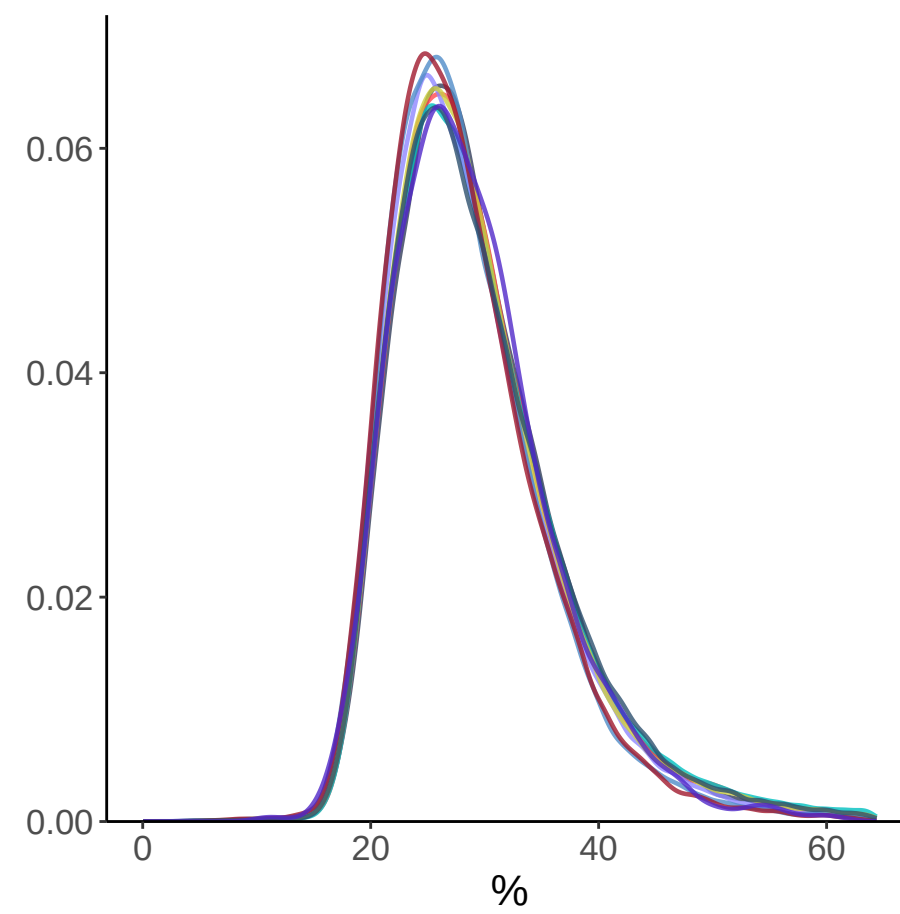
1 2 3 4 5
6 7 8 9



XL_VLDL_C_pct

Spectrometer

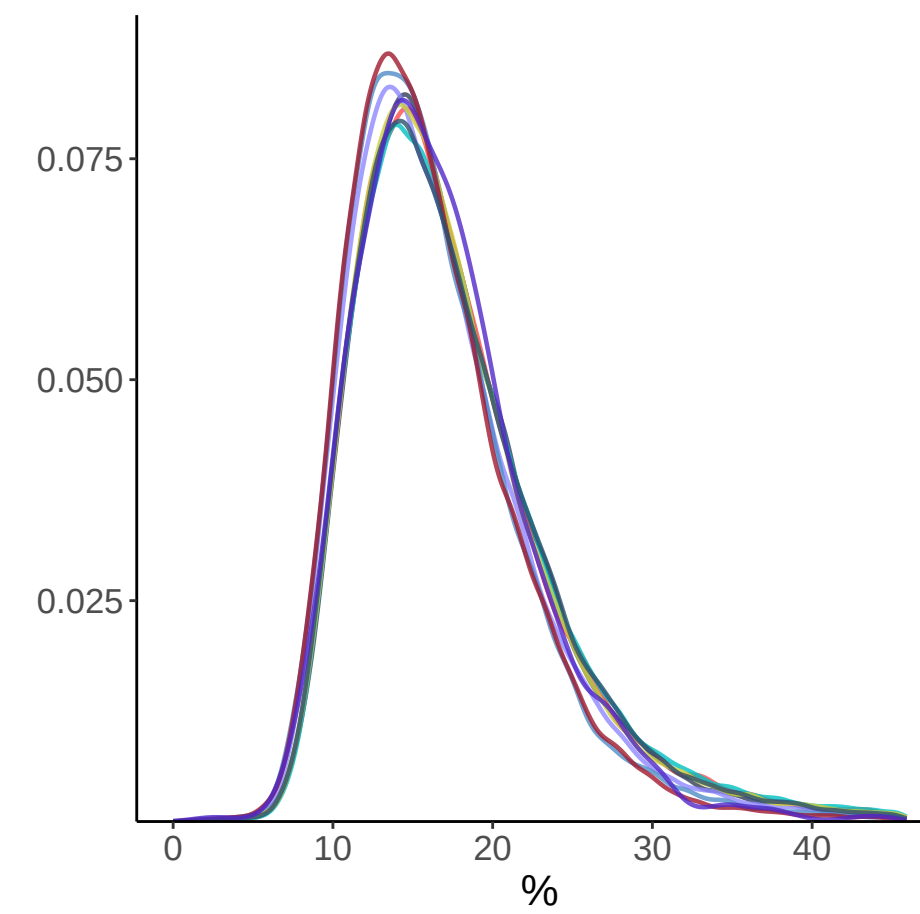
1 2 3 4 5
6 7 8 9



XL_VLDL_CE_pct

Spectrometer

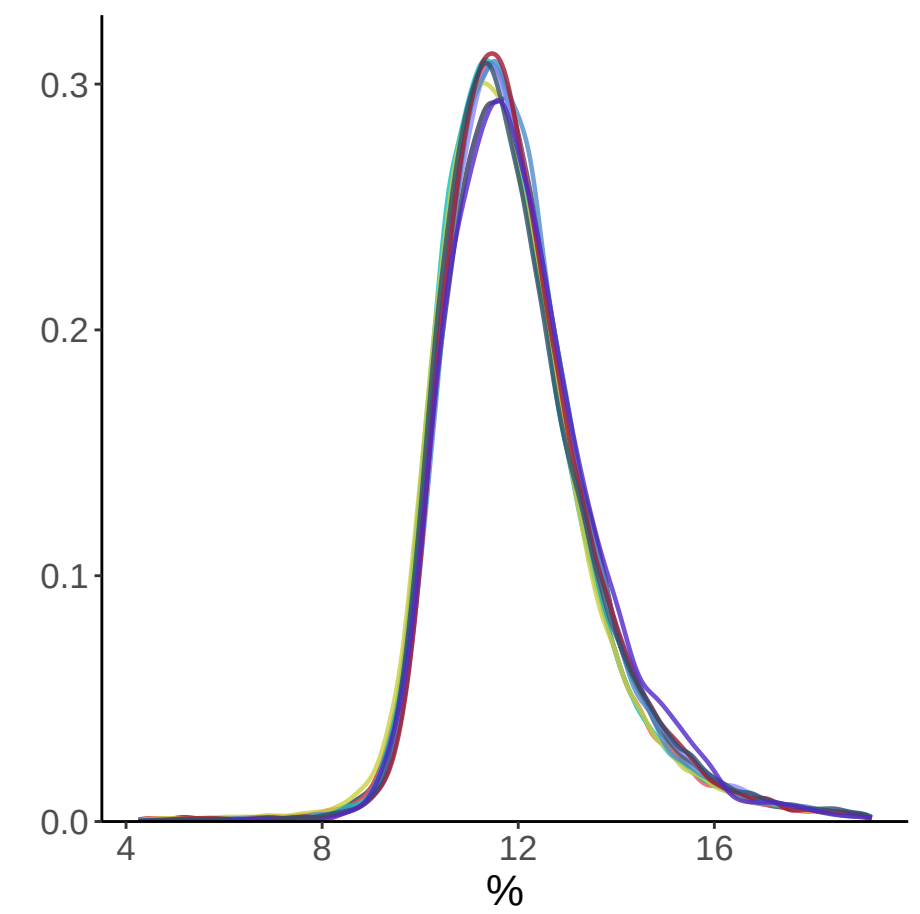
1 2 3 4 5
6 7 8 9



XL_VLDL_FC_pct

Spectrometer

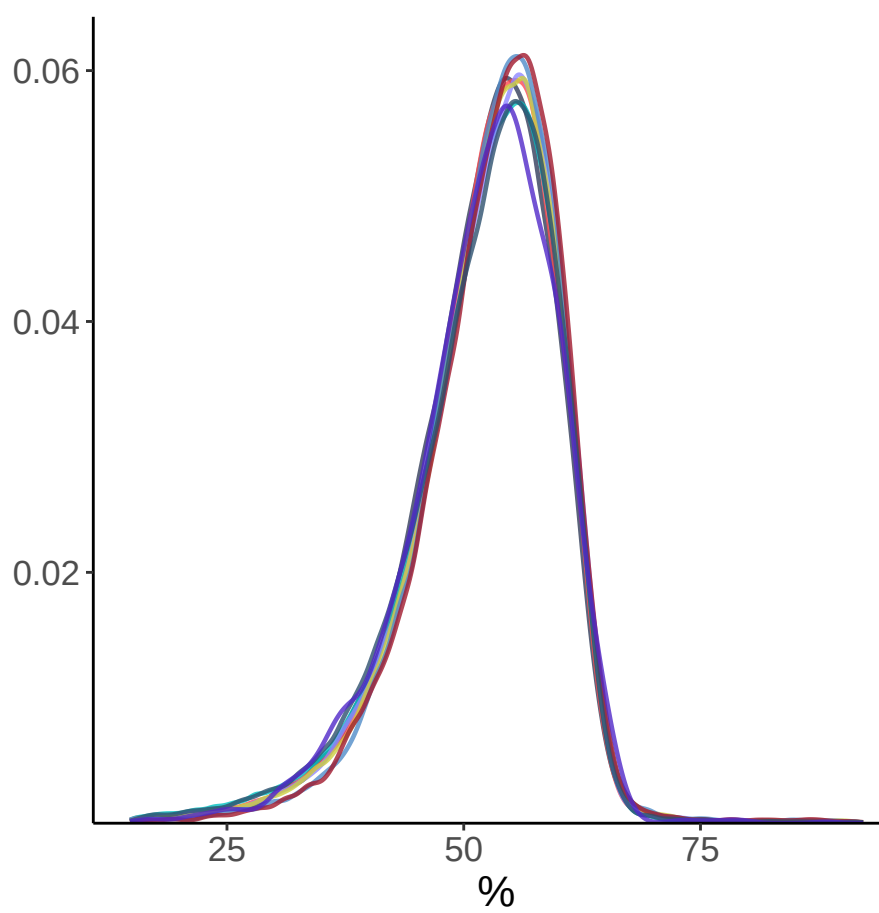
1 2 3 4 5
6 7 8 9



XL_VLDL_TG_pct

Spectrometer

1 2 3 4 5
6 7 8 9

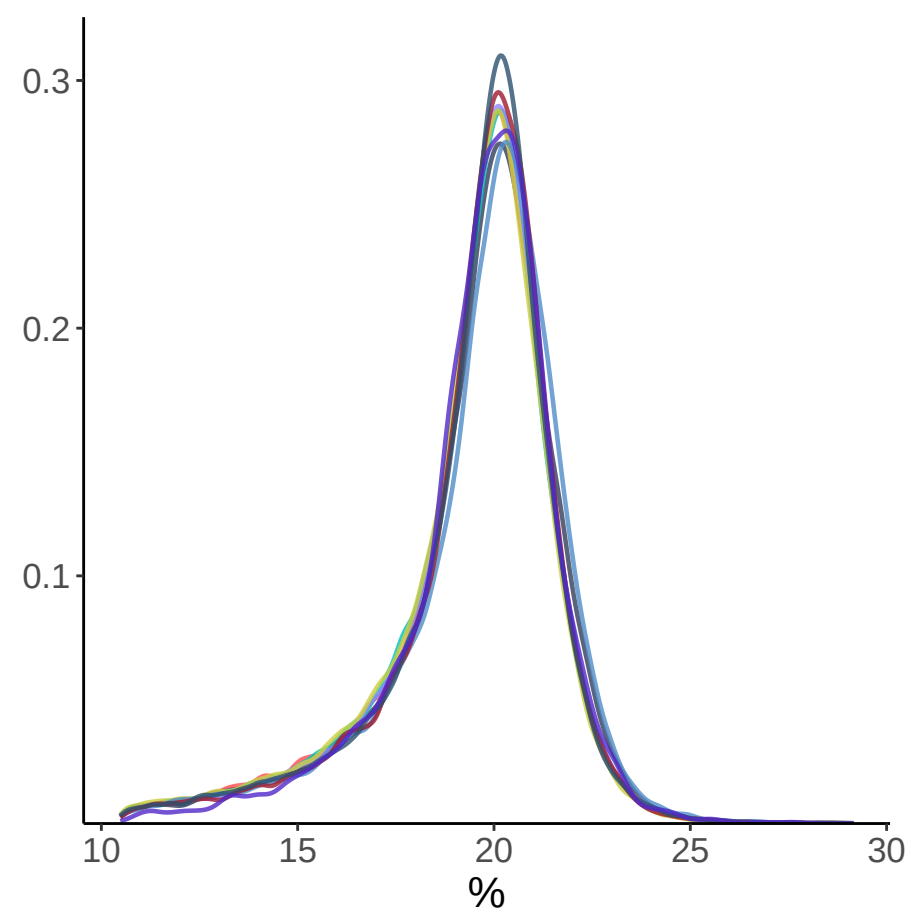


Large VLDL ratios

L_VLDL_PL_pct

Spectrometer

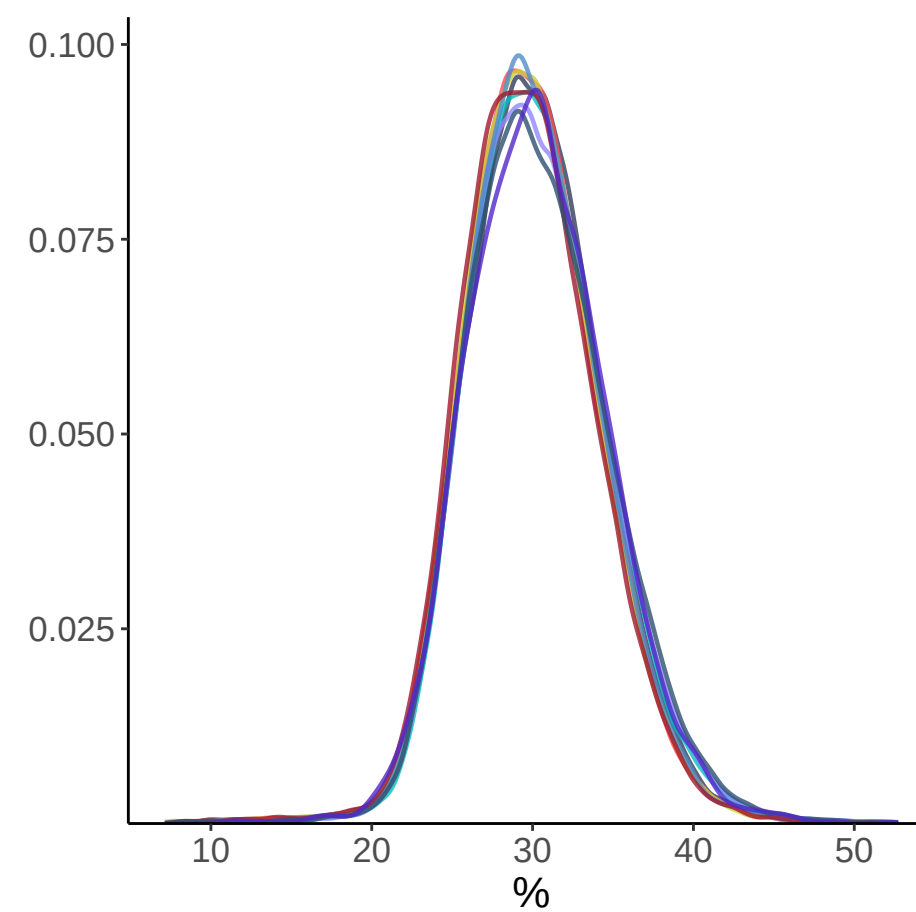
1 2 3 4 5
6 7 8 9



L_VLDL_C_pct

Spectrometer

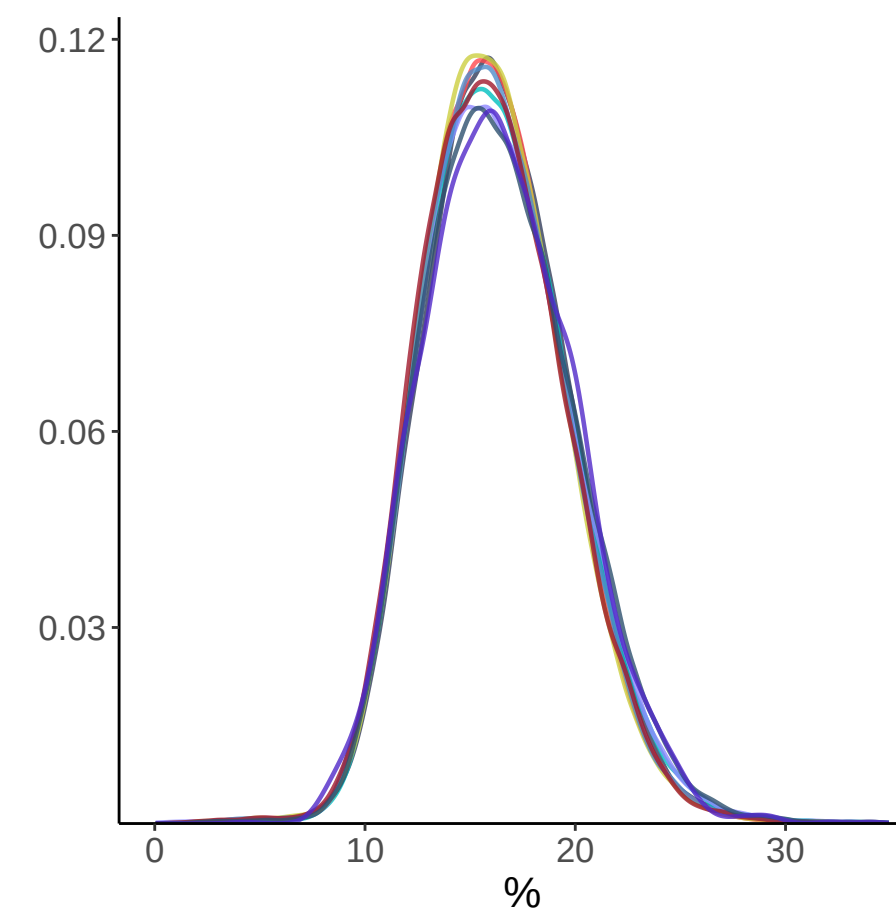
1 2 3 4 5
6 7 8 9



L_VLDL_CE_pct

Spectrometer

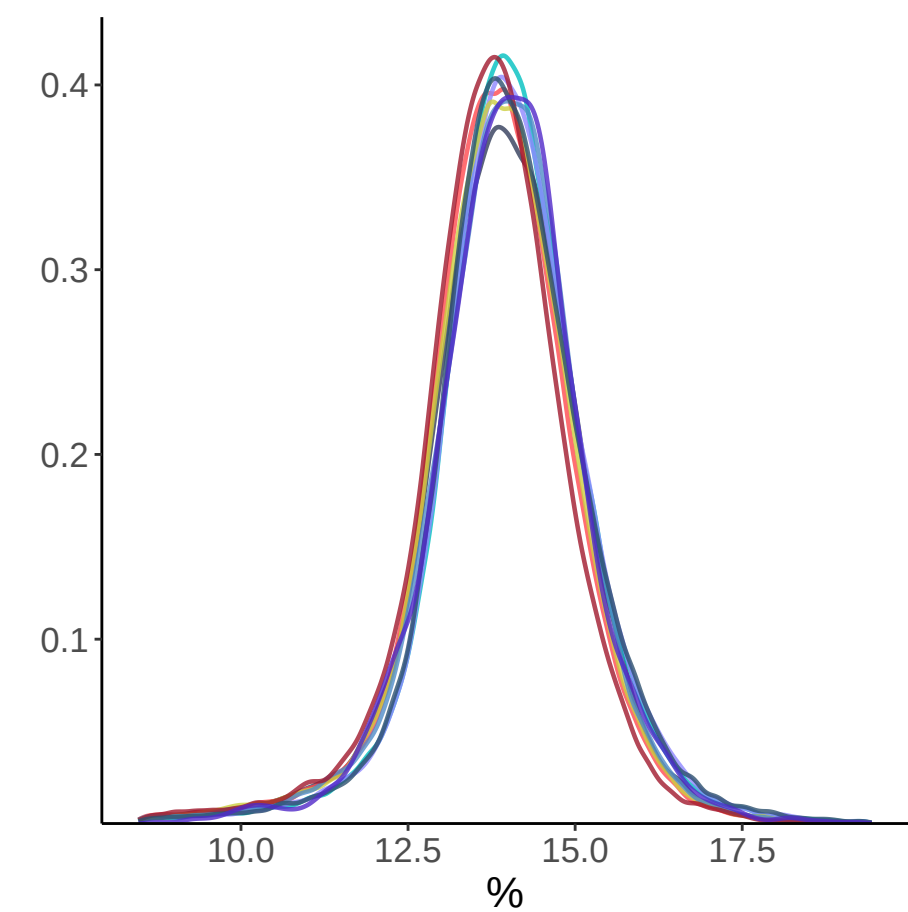
1 2 3 4 5
6 7 8 9



L_VLDL_FC_pct

Spectrometer

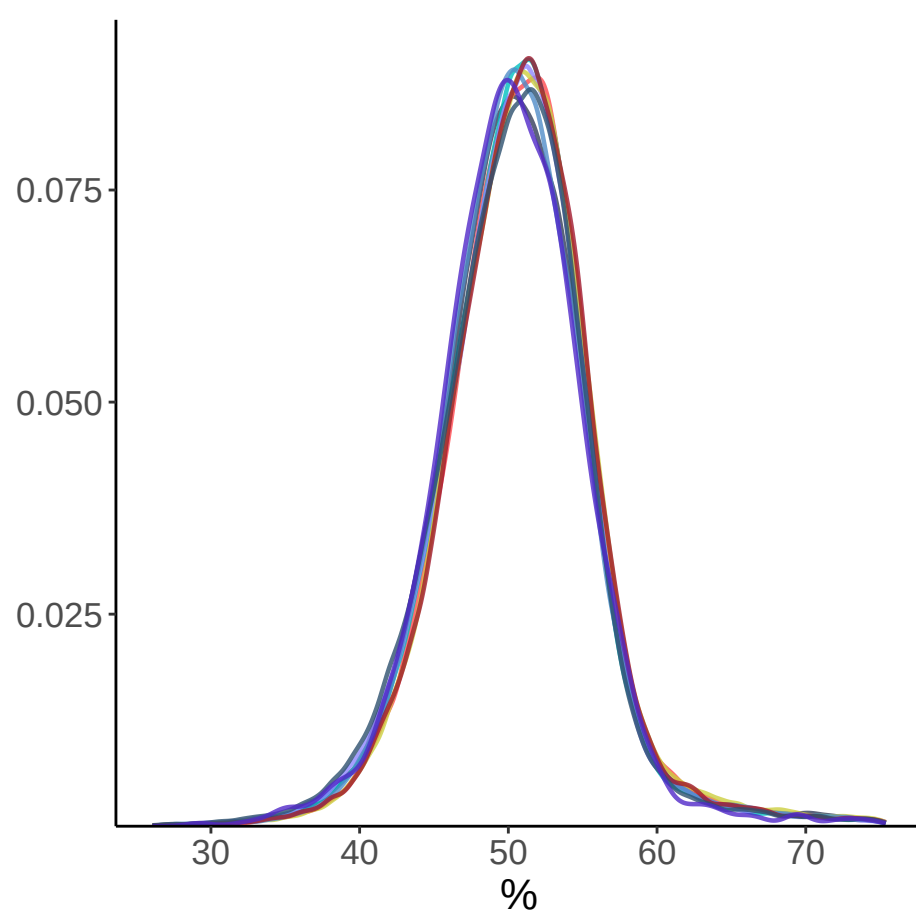
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6 7 8 9



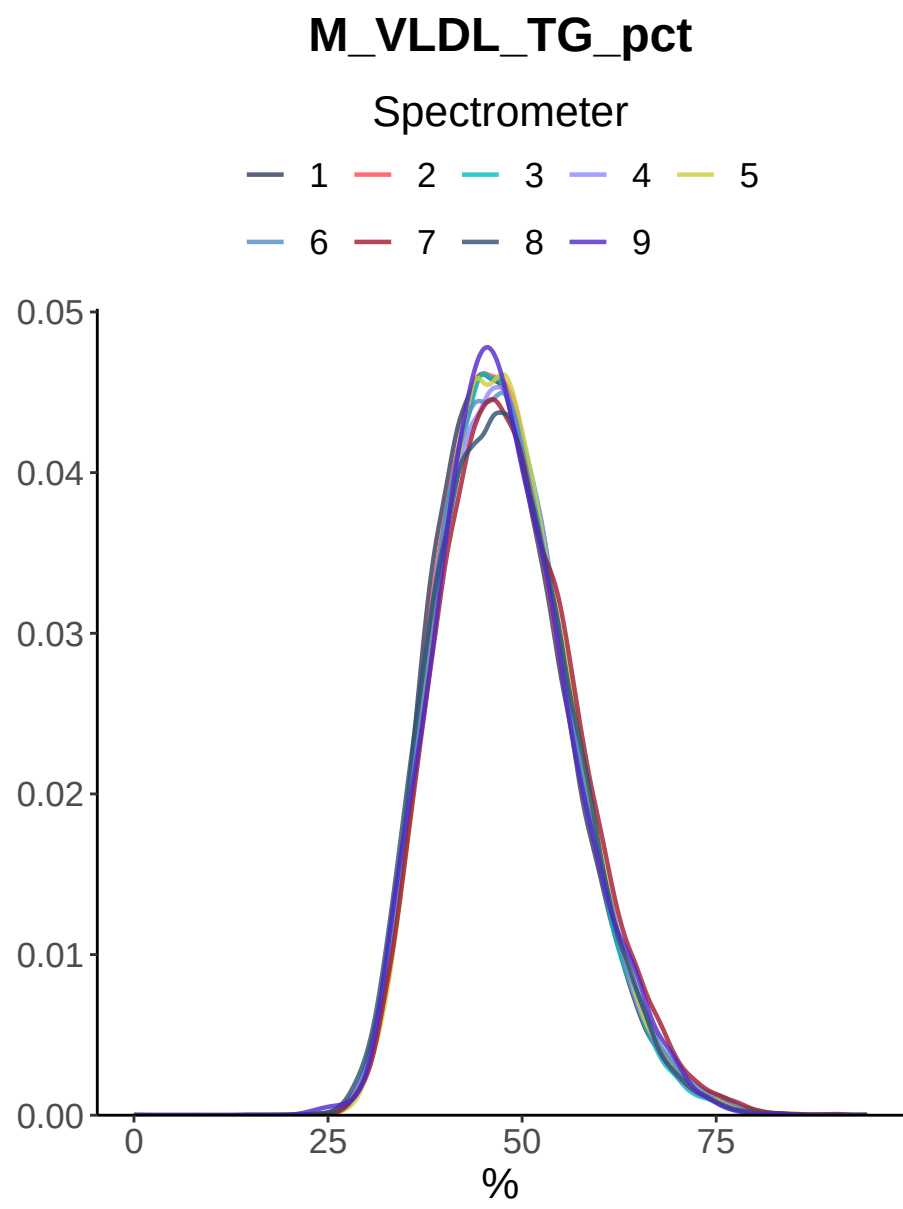
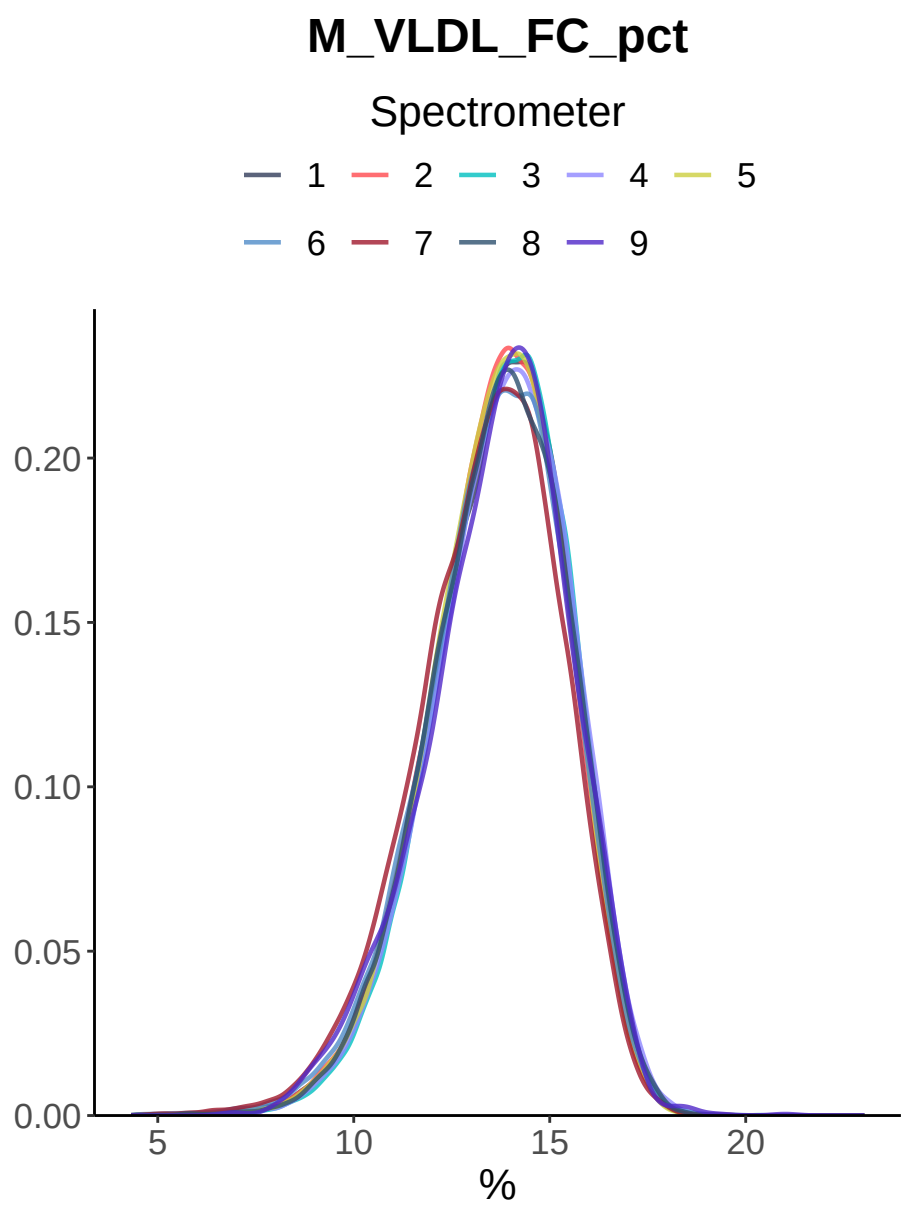
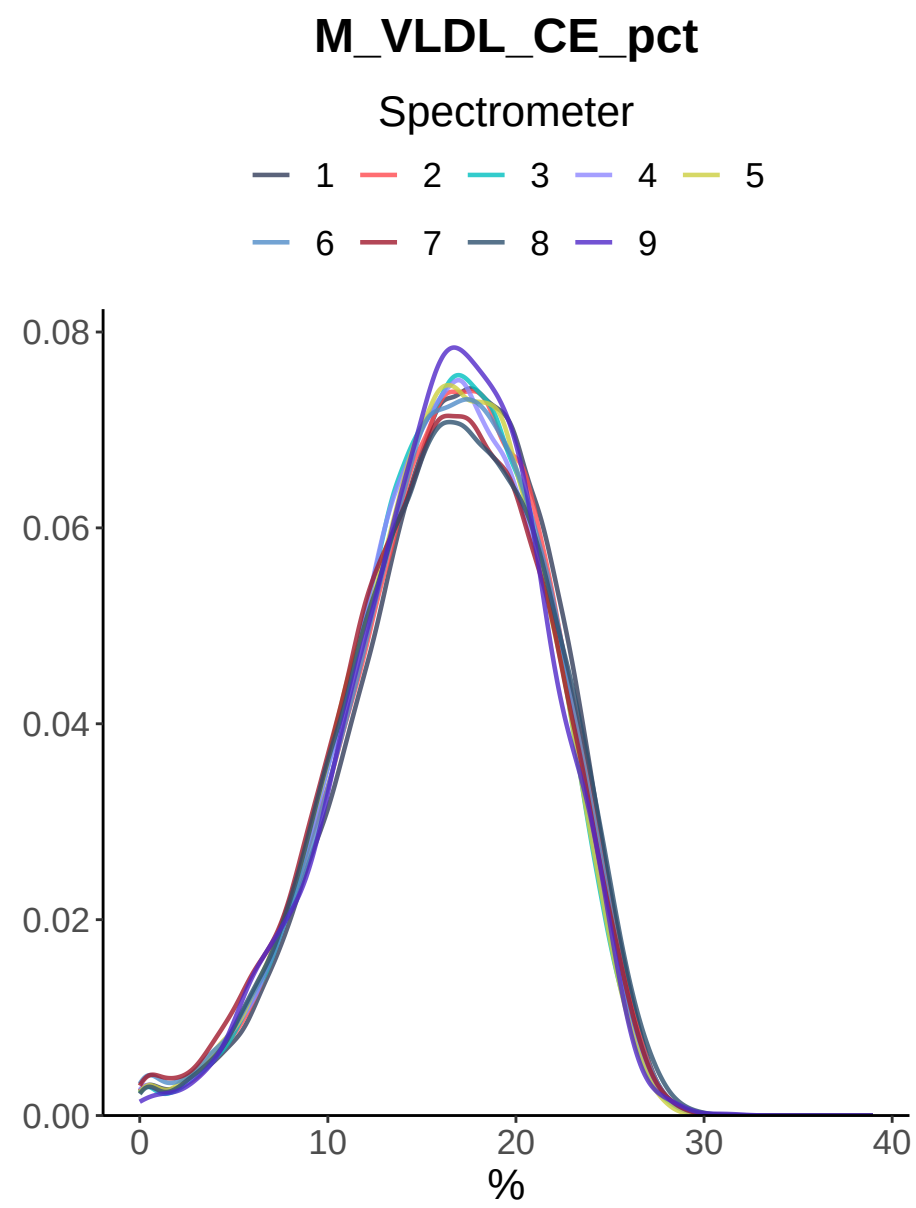
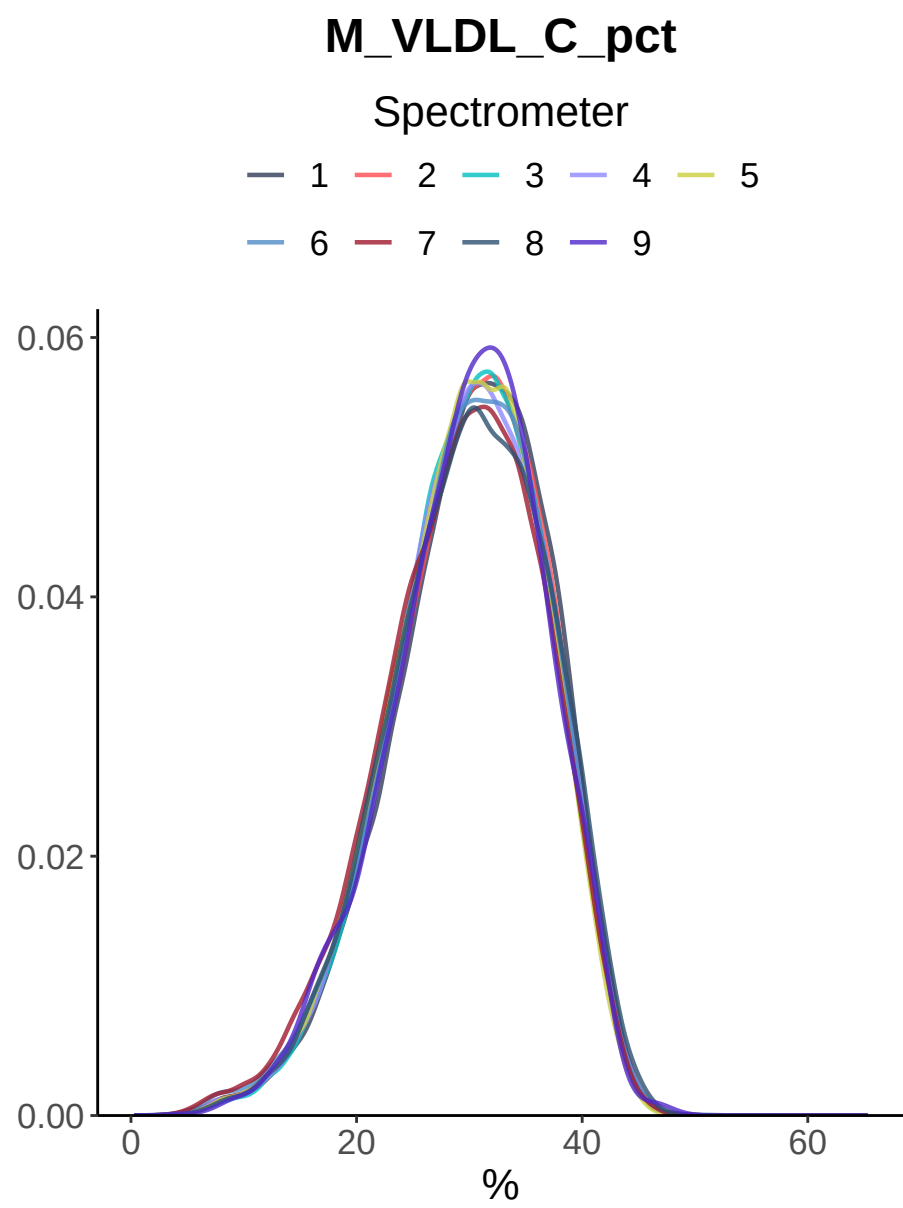
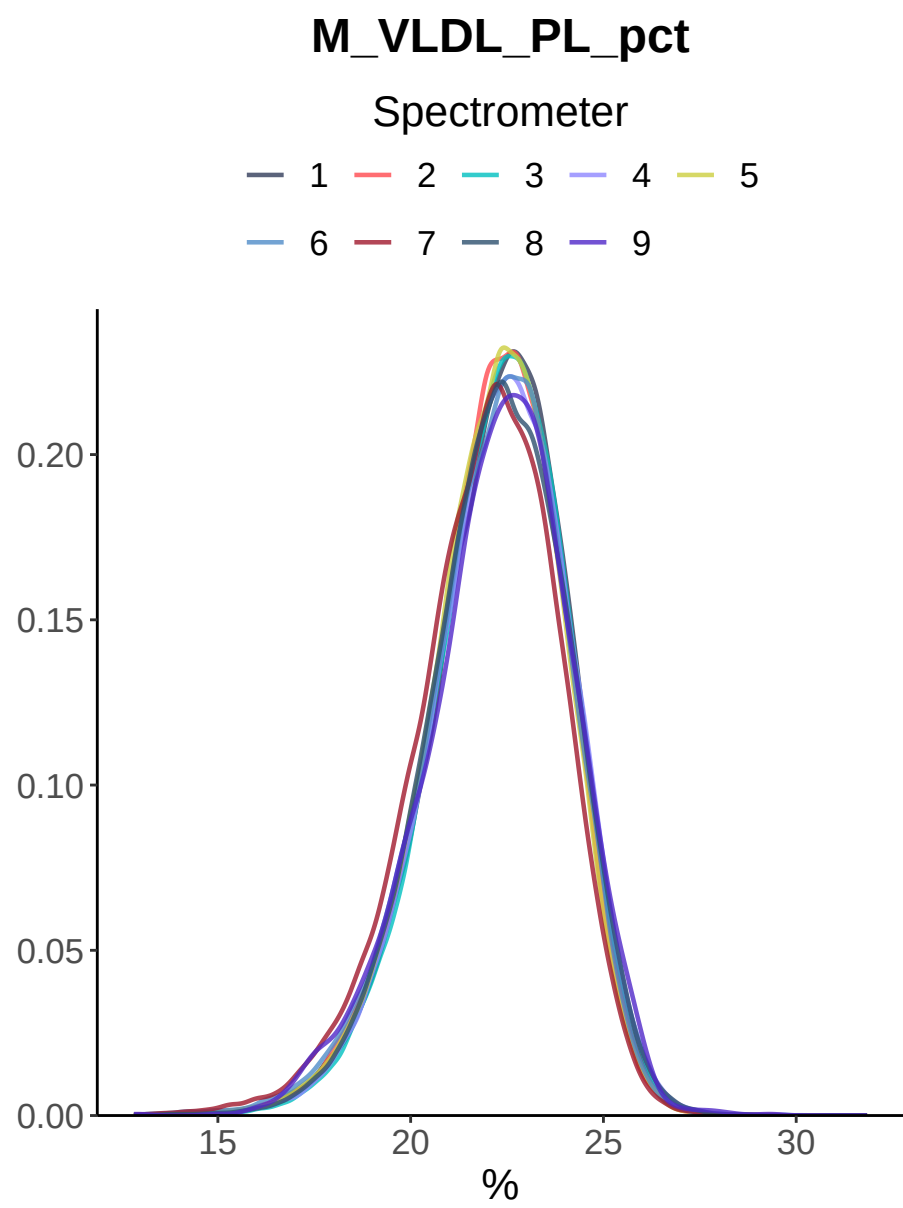
L_VLDL_TG_pct

Spectrometer

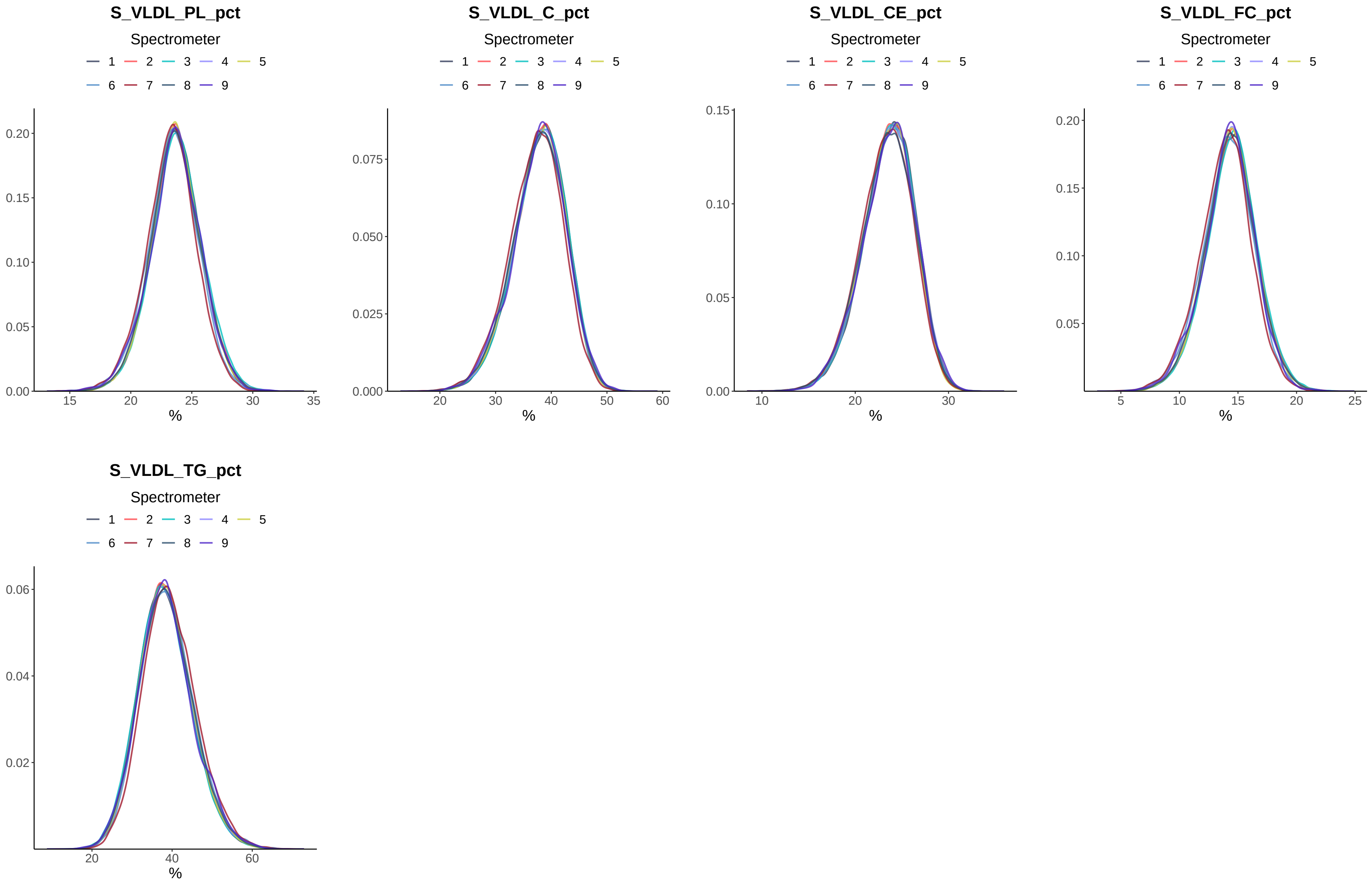
1 2 3 4 5
6 7 8 9



Medium VLDL ratios



Small VLDL ratios

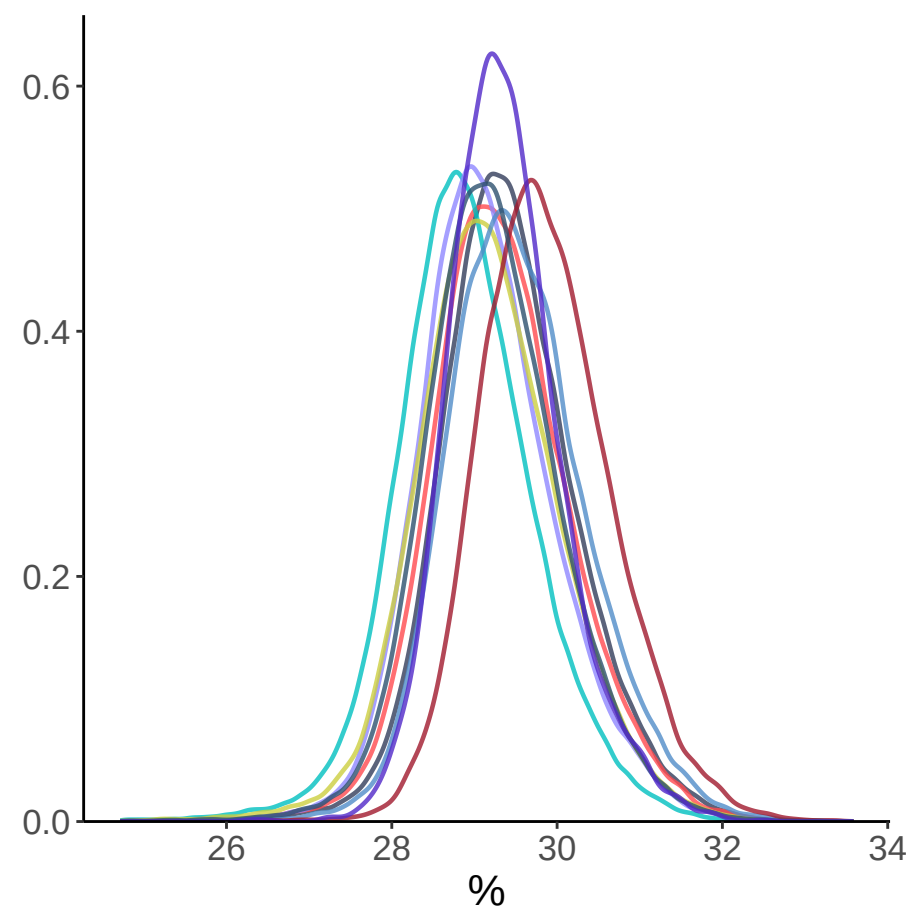


Very small VLDL ratios

XS_VLDL_PL_pct

Spectrometer

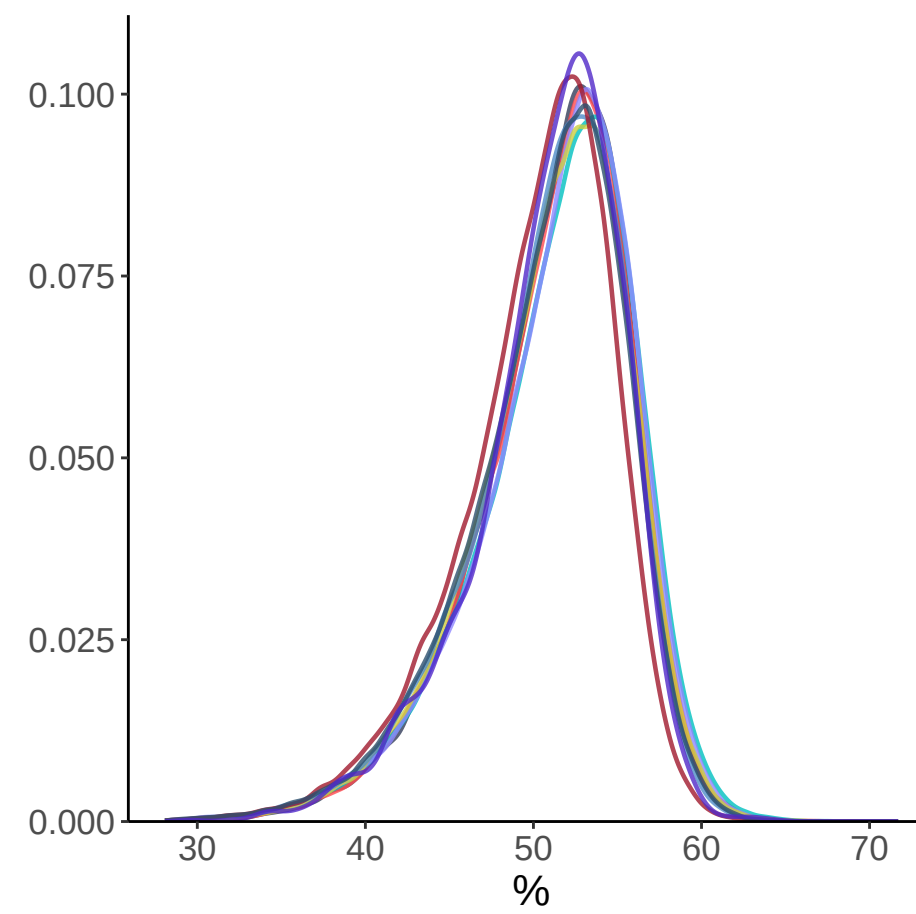
1 2 3 4 5
6 7 8 9



XS_VLDL_C_pct

Spectrometer

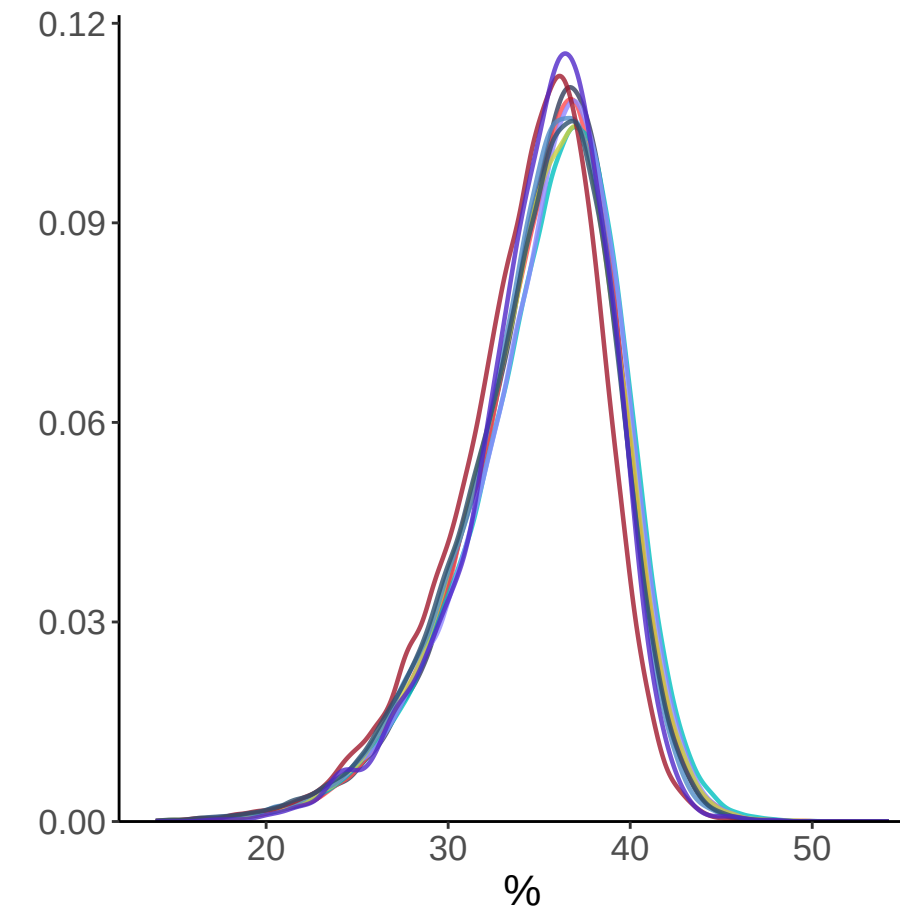
1 2 3 4 5
6 7 8 9



XS_VLDL_CE_pct

Spectrometer

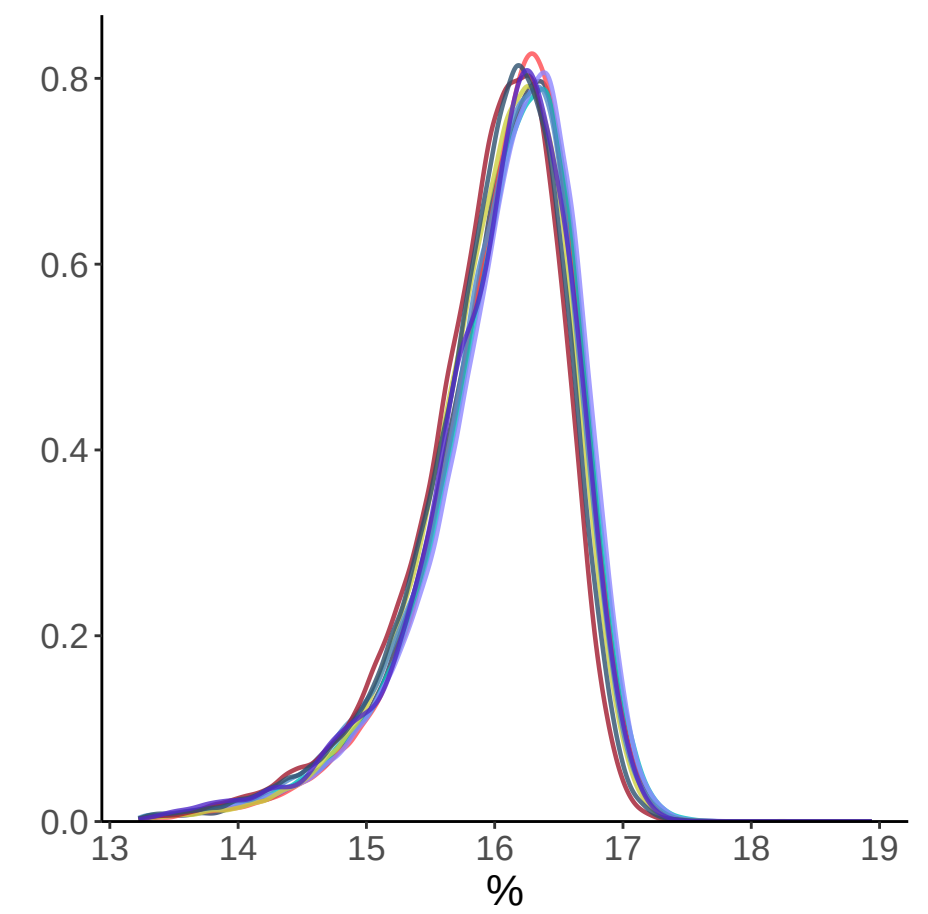
1 2 3 4 5
6 7 8 9



XS_VLDL_FC_pct

Spectrometer

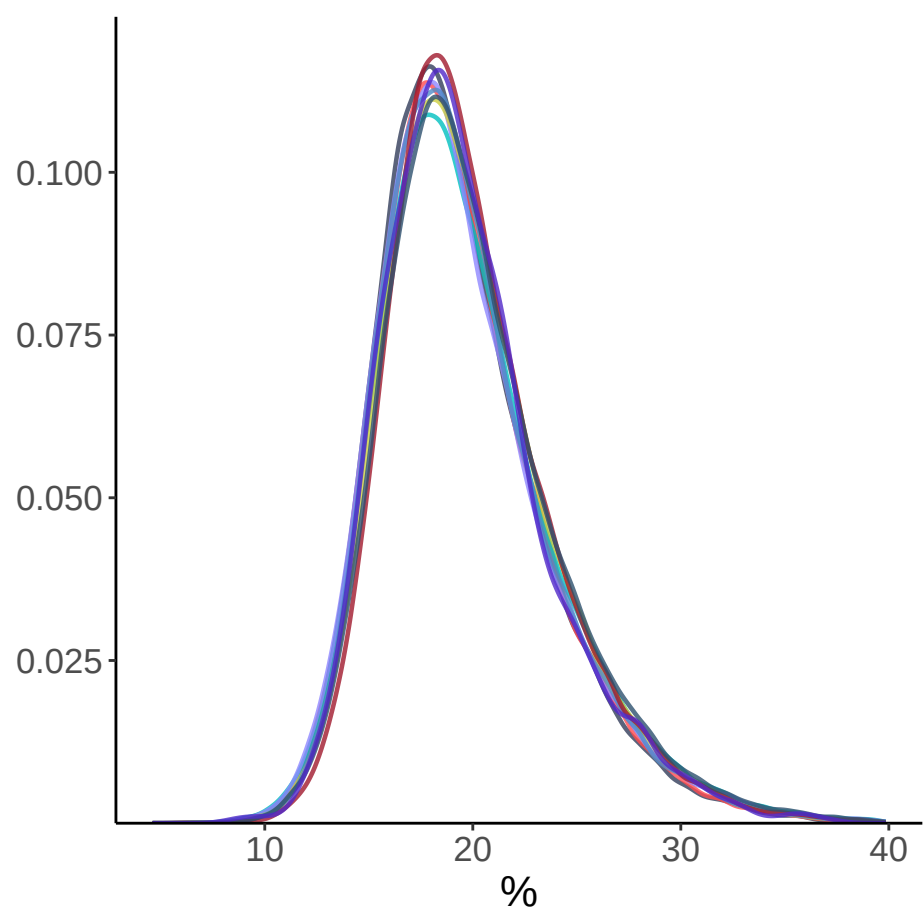
1 2 3 4 5
6 7 8 9



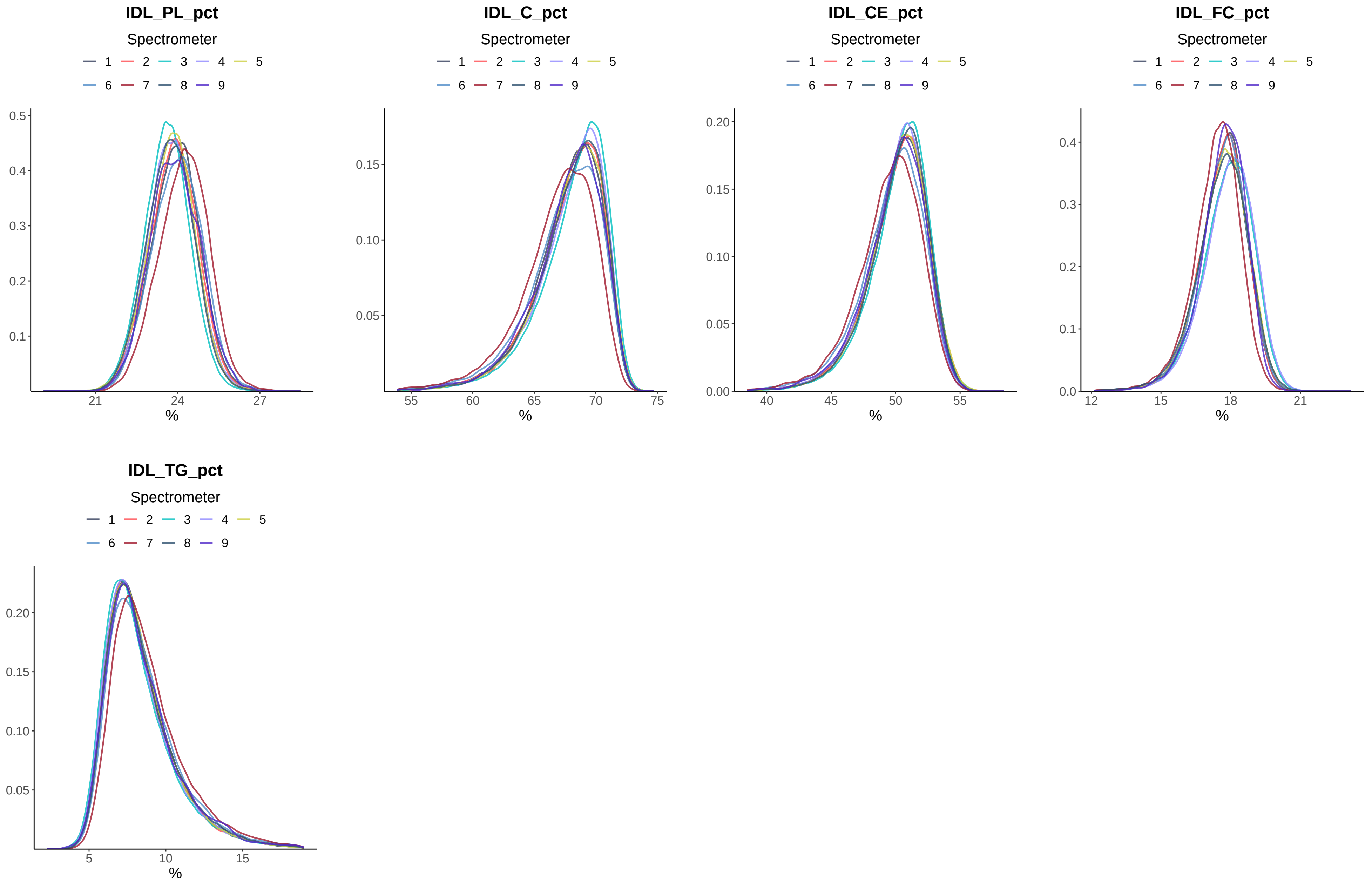
XS_VLDL_TG_pct

Spectrometer

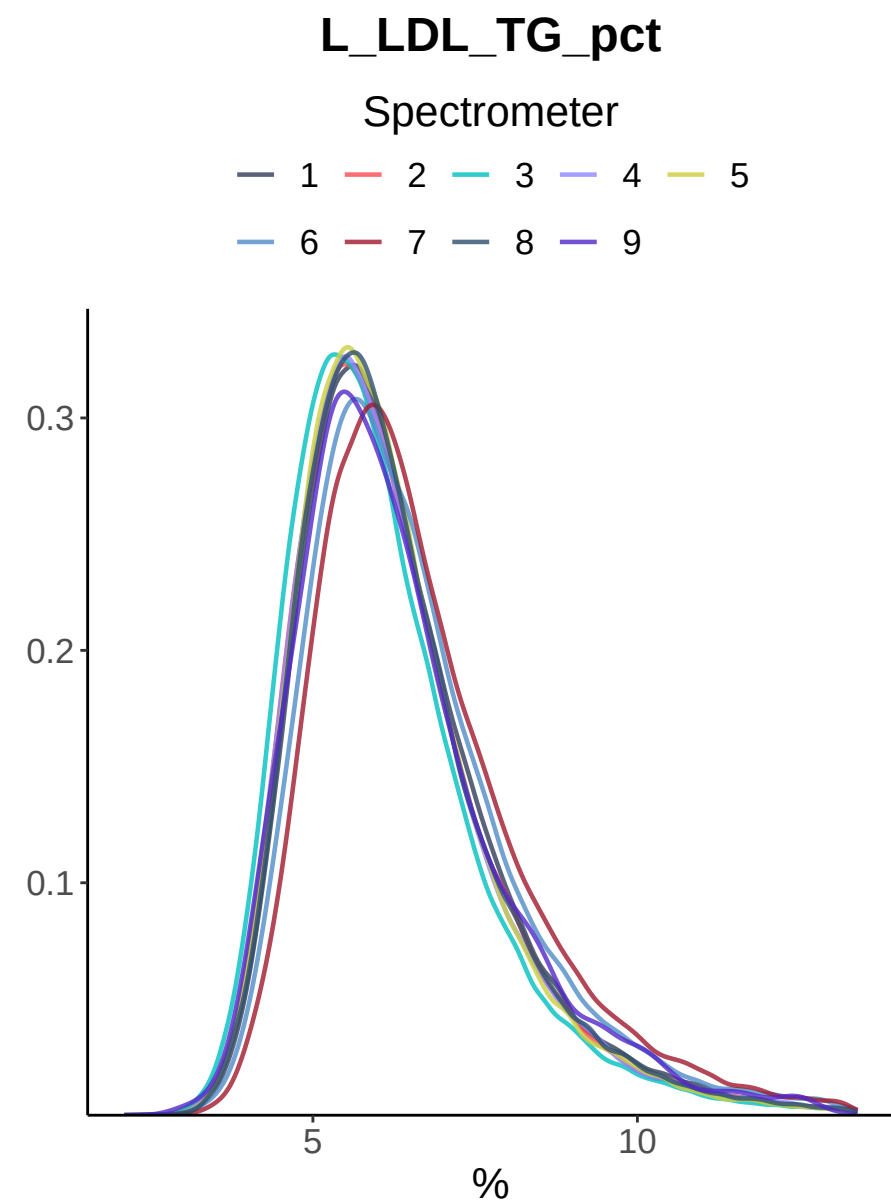
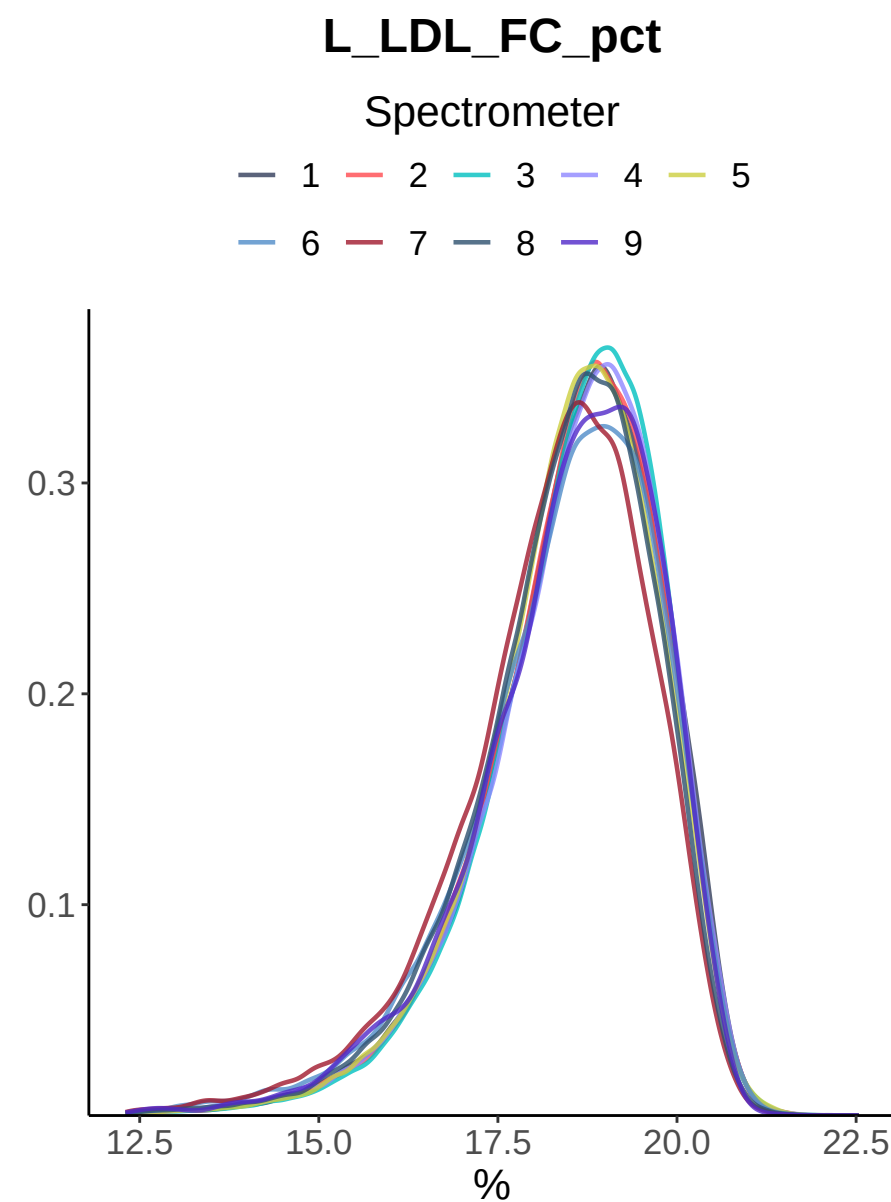
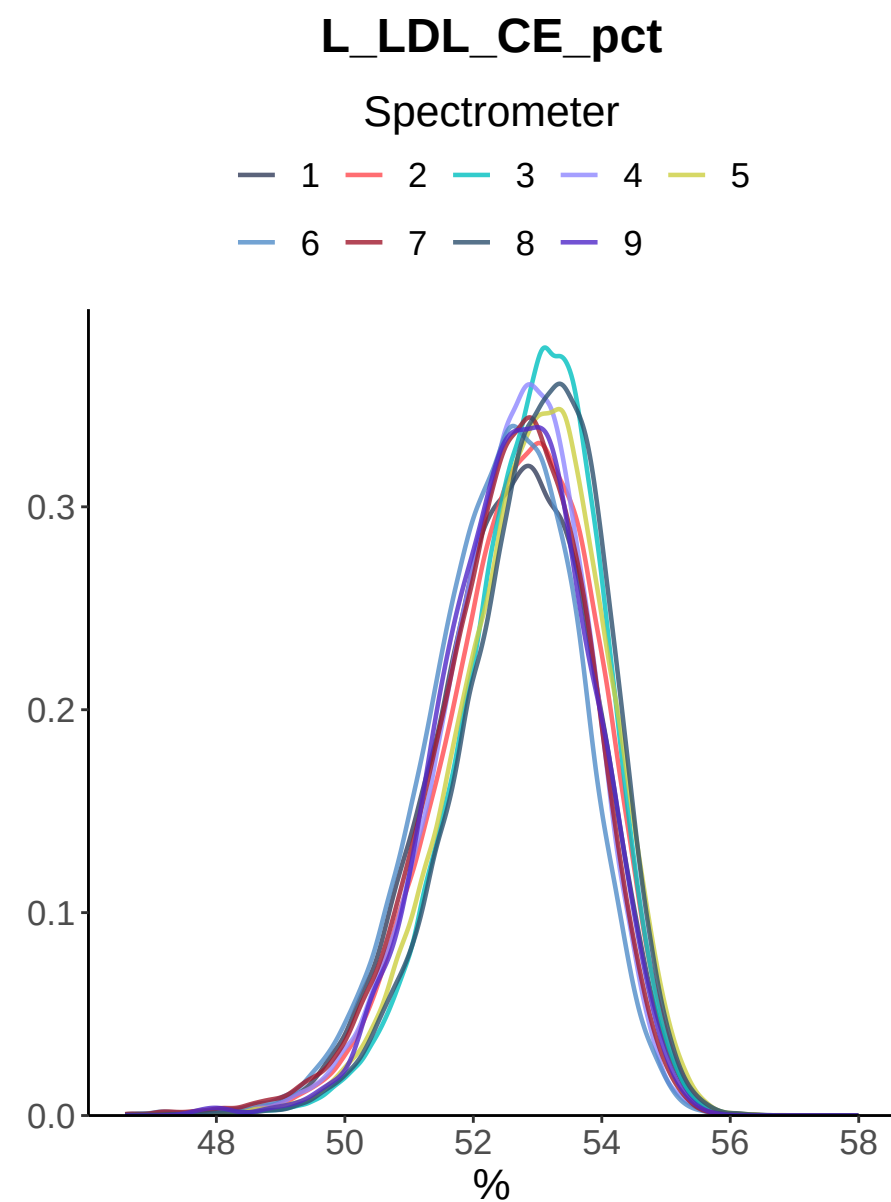
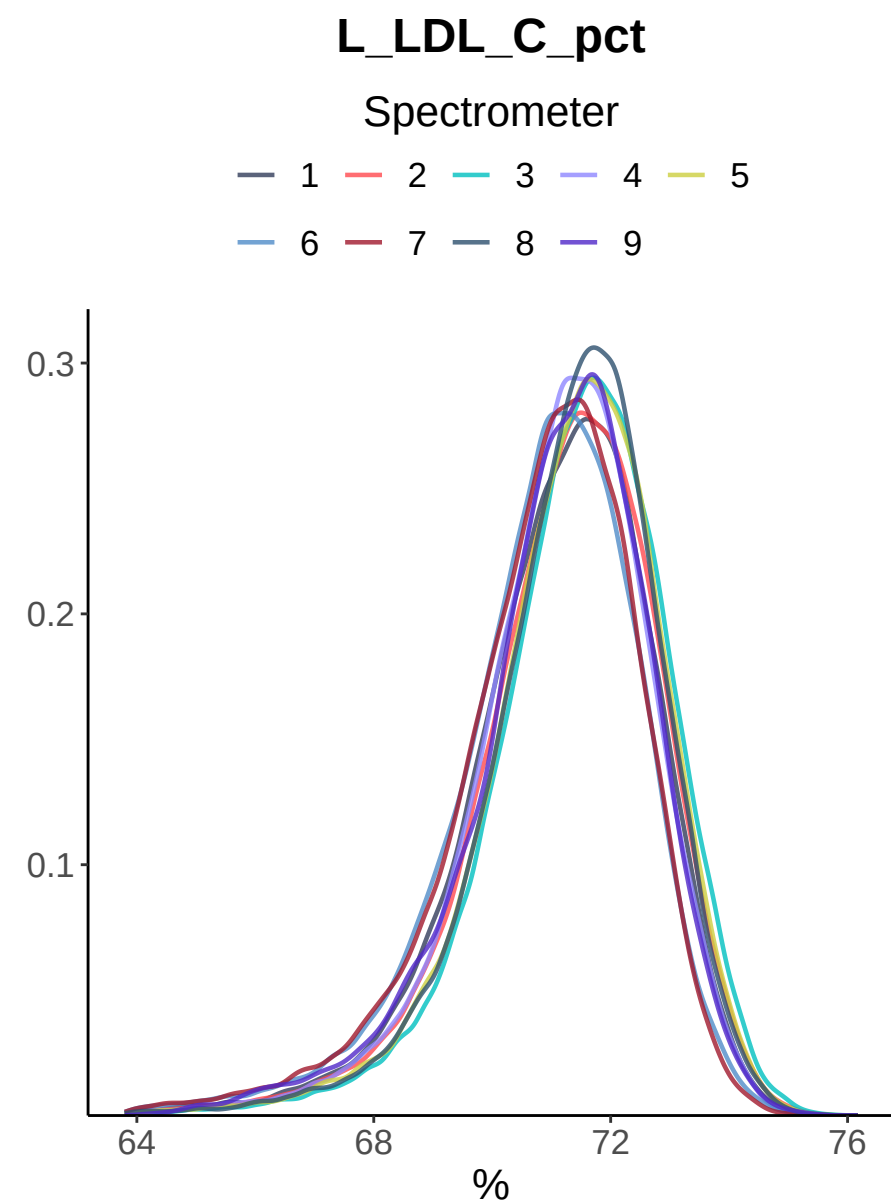
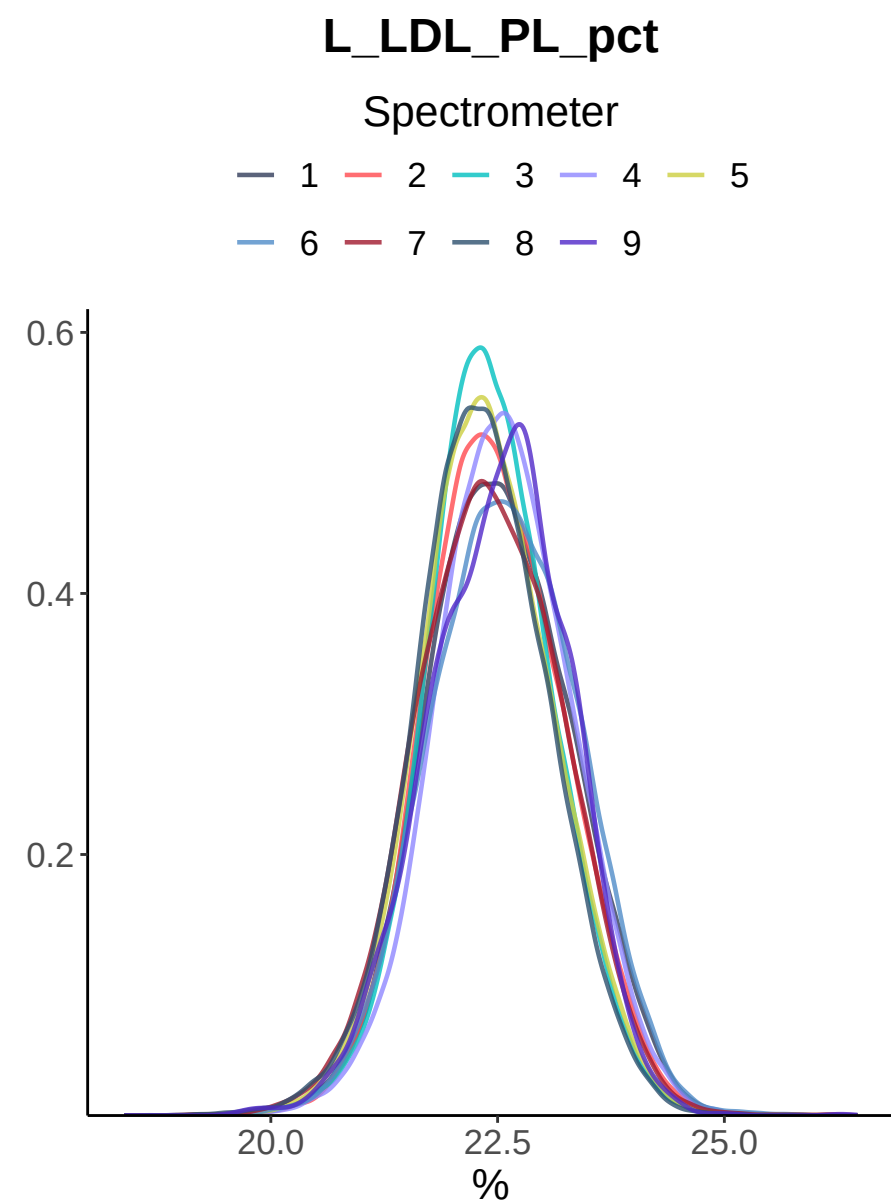
1 2 3 4 5
6 7 8 9



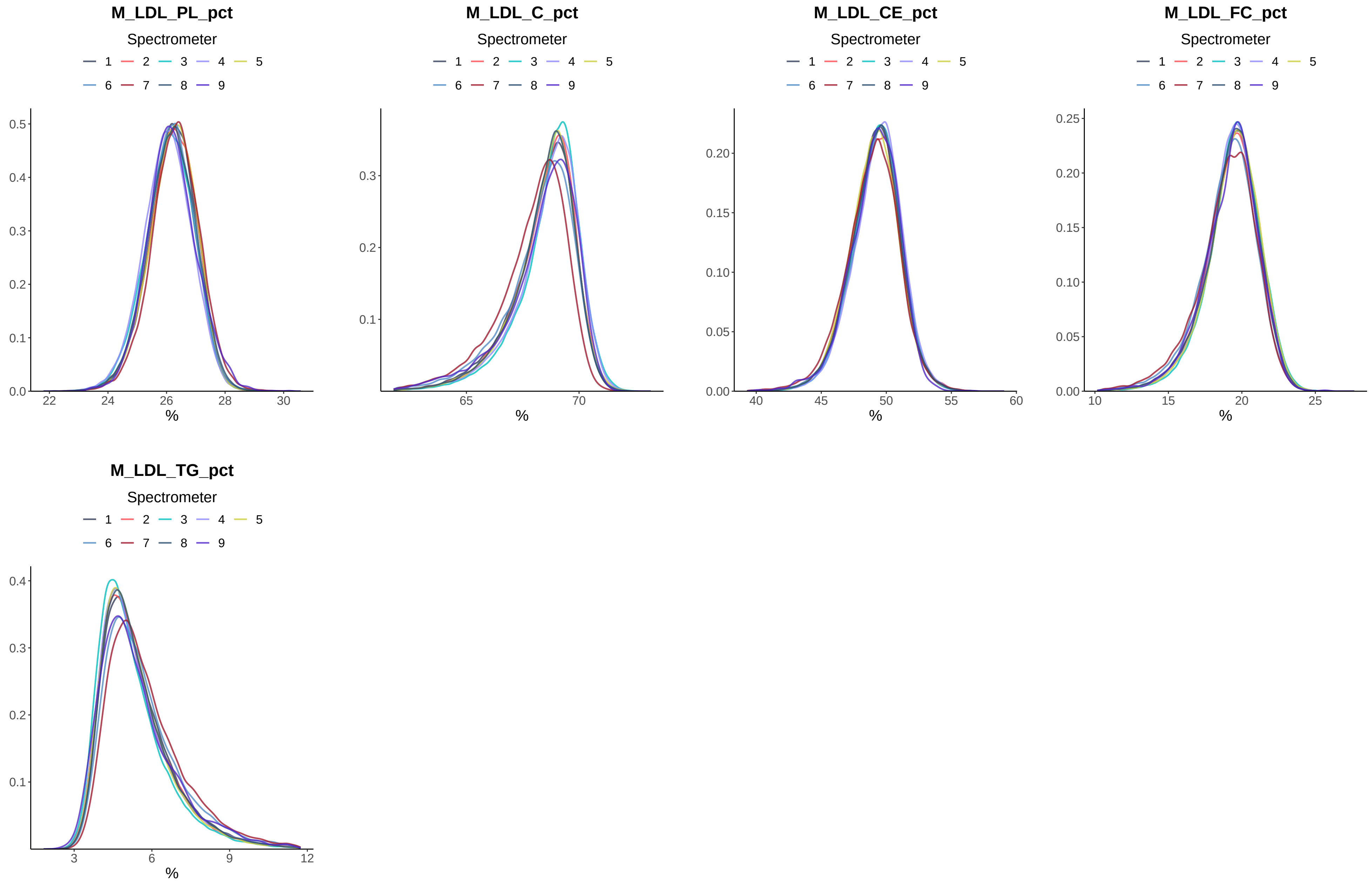
IDL ratios



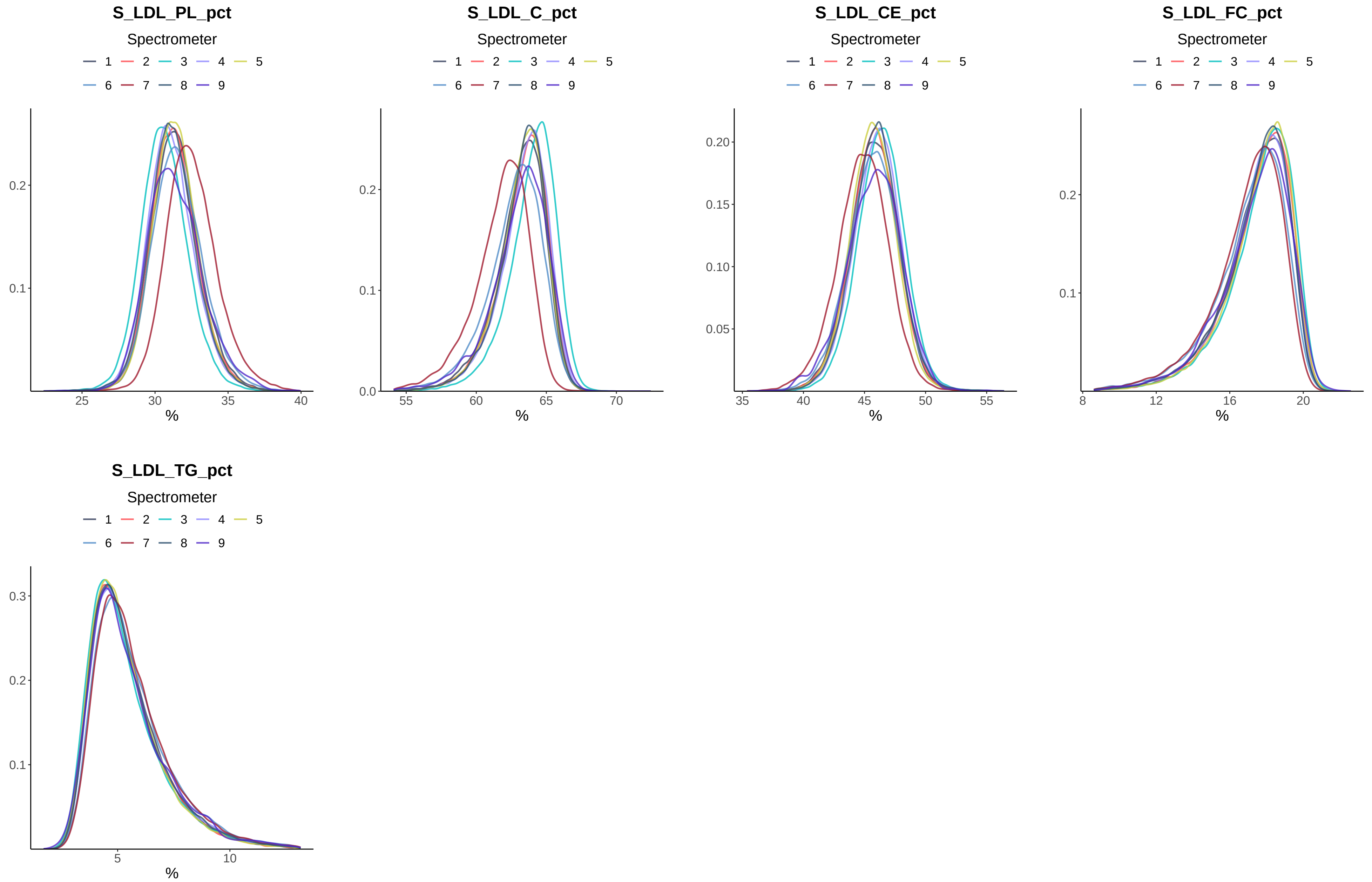
Large LDL ratios



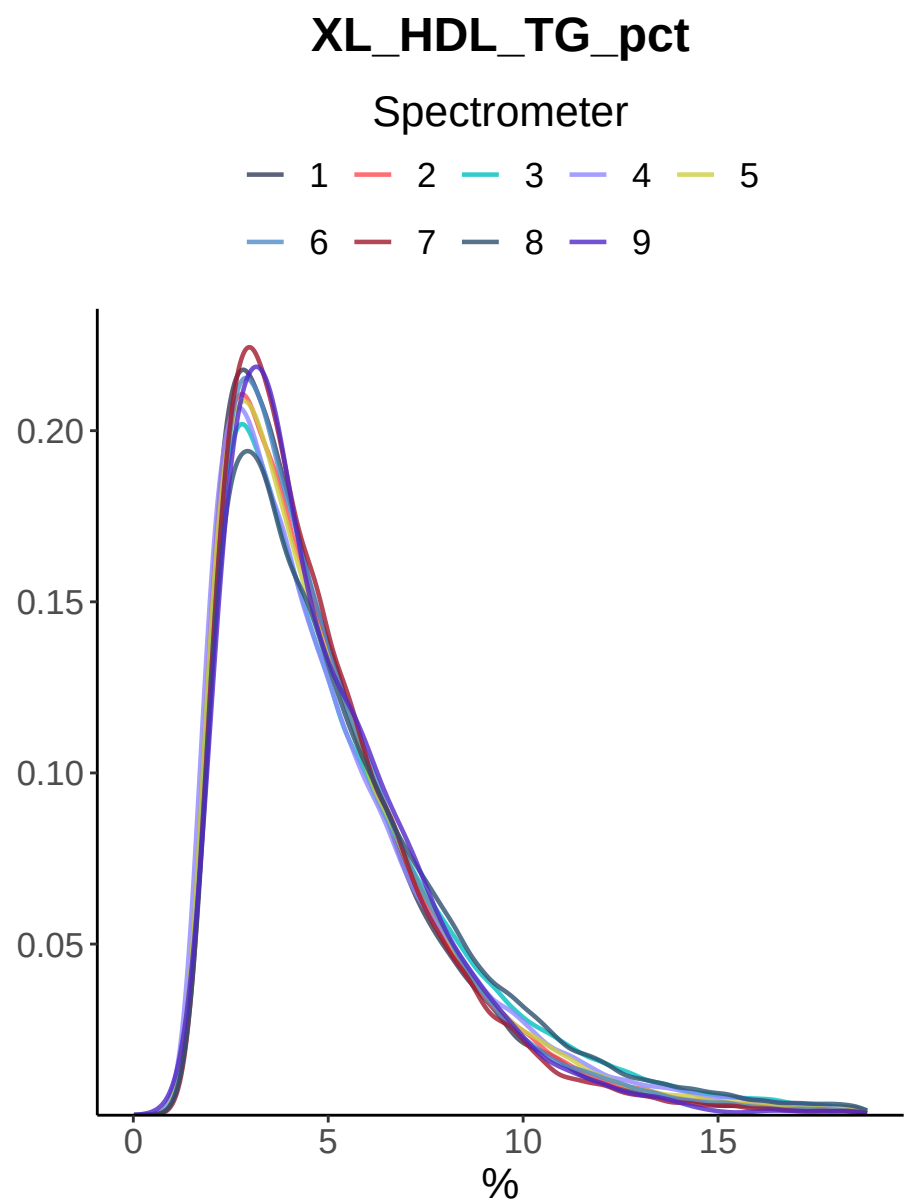
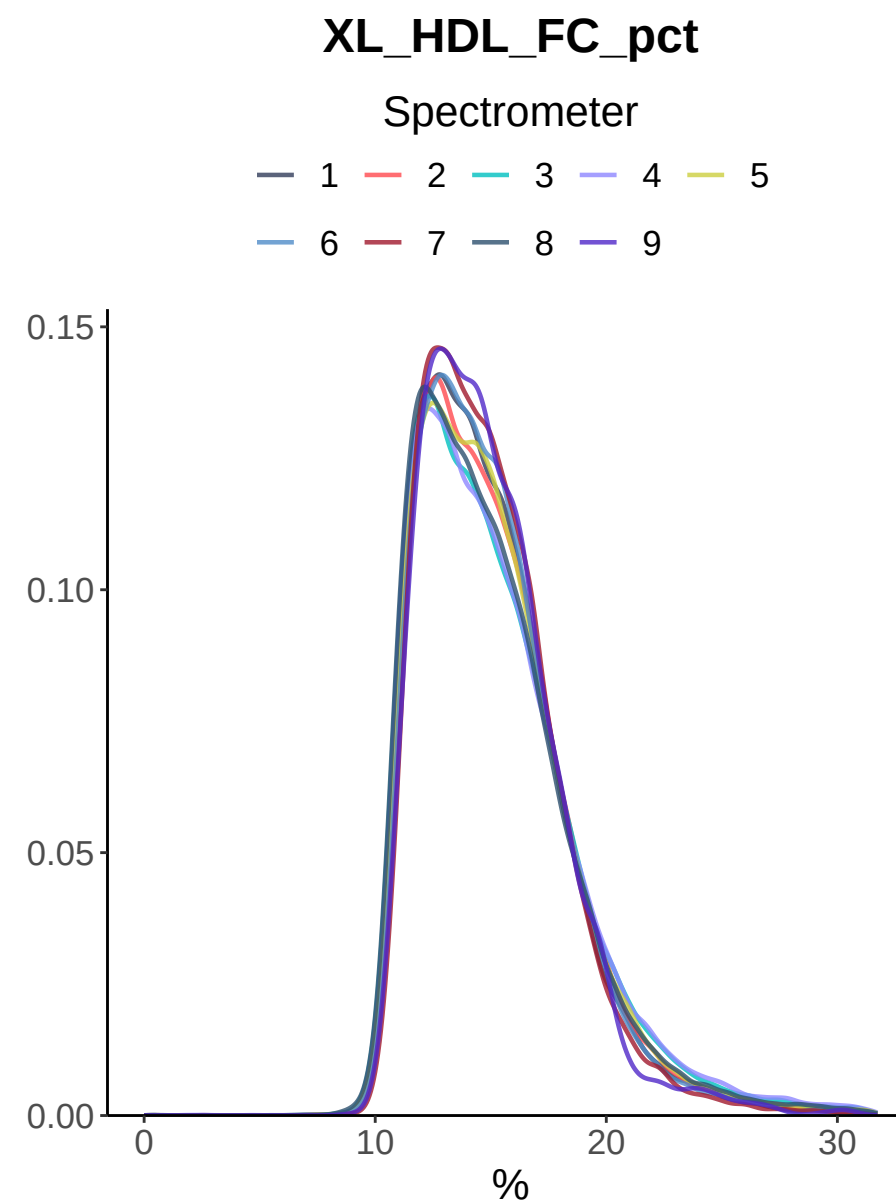
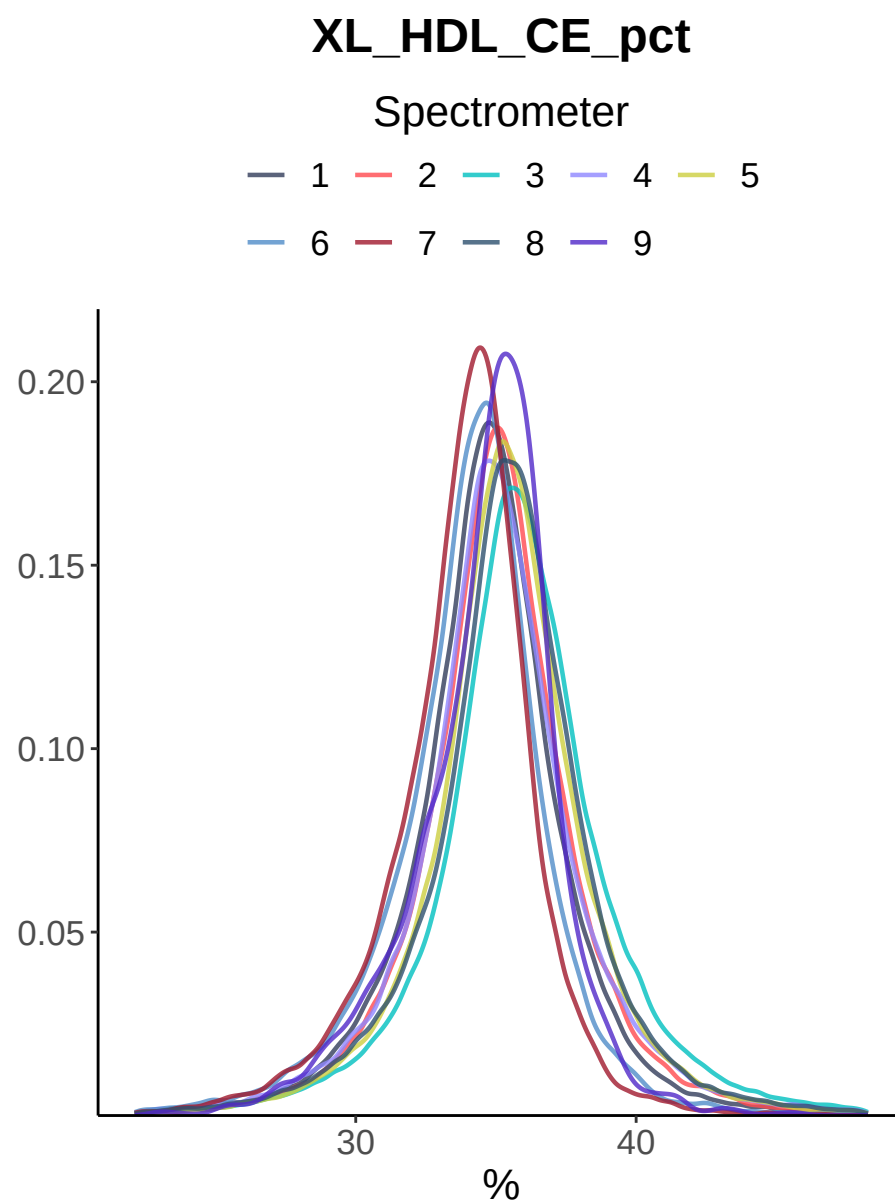
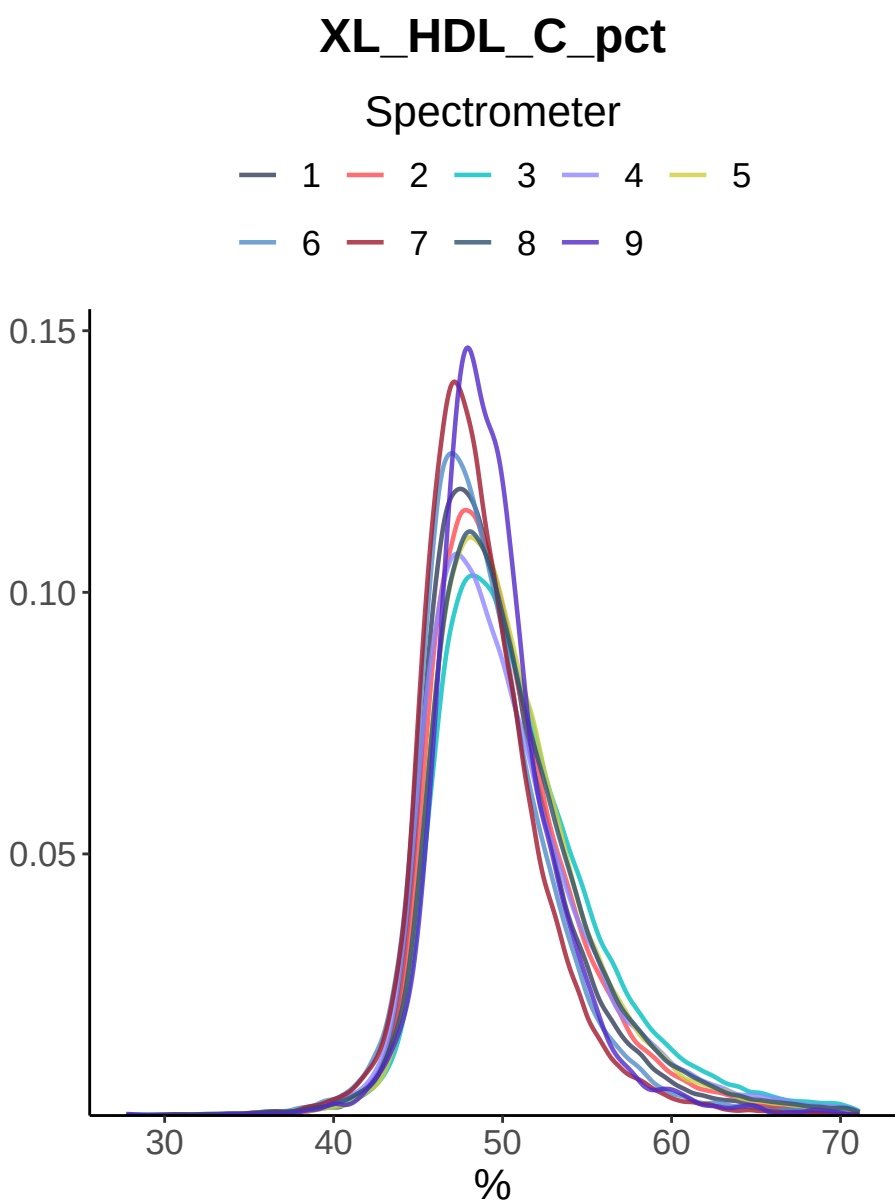
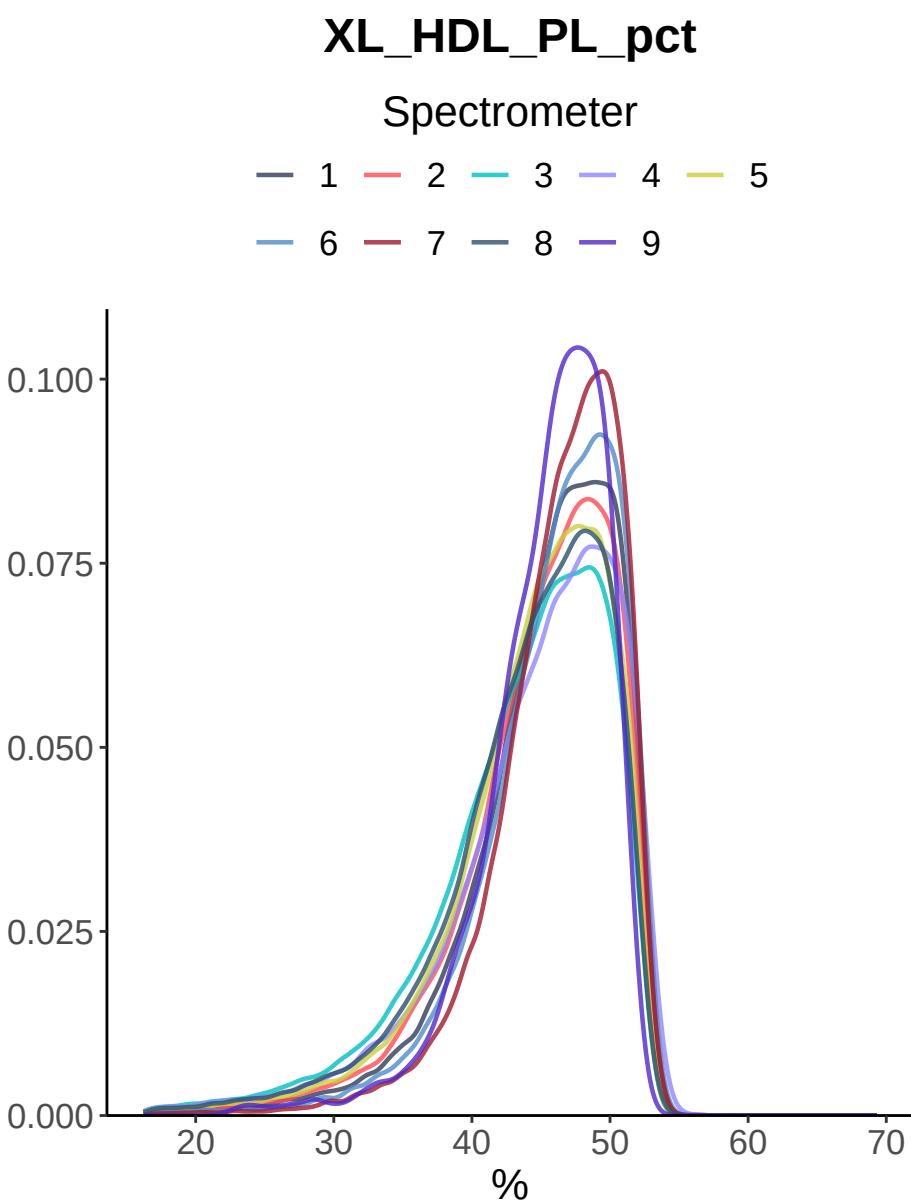
Medium LDL ratios



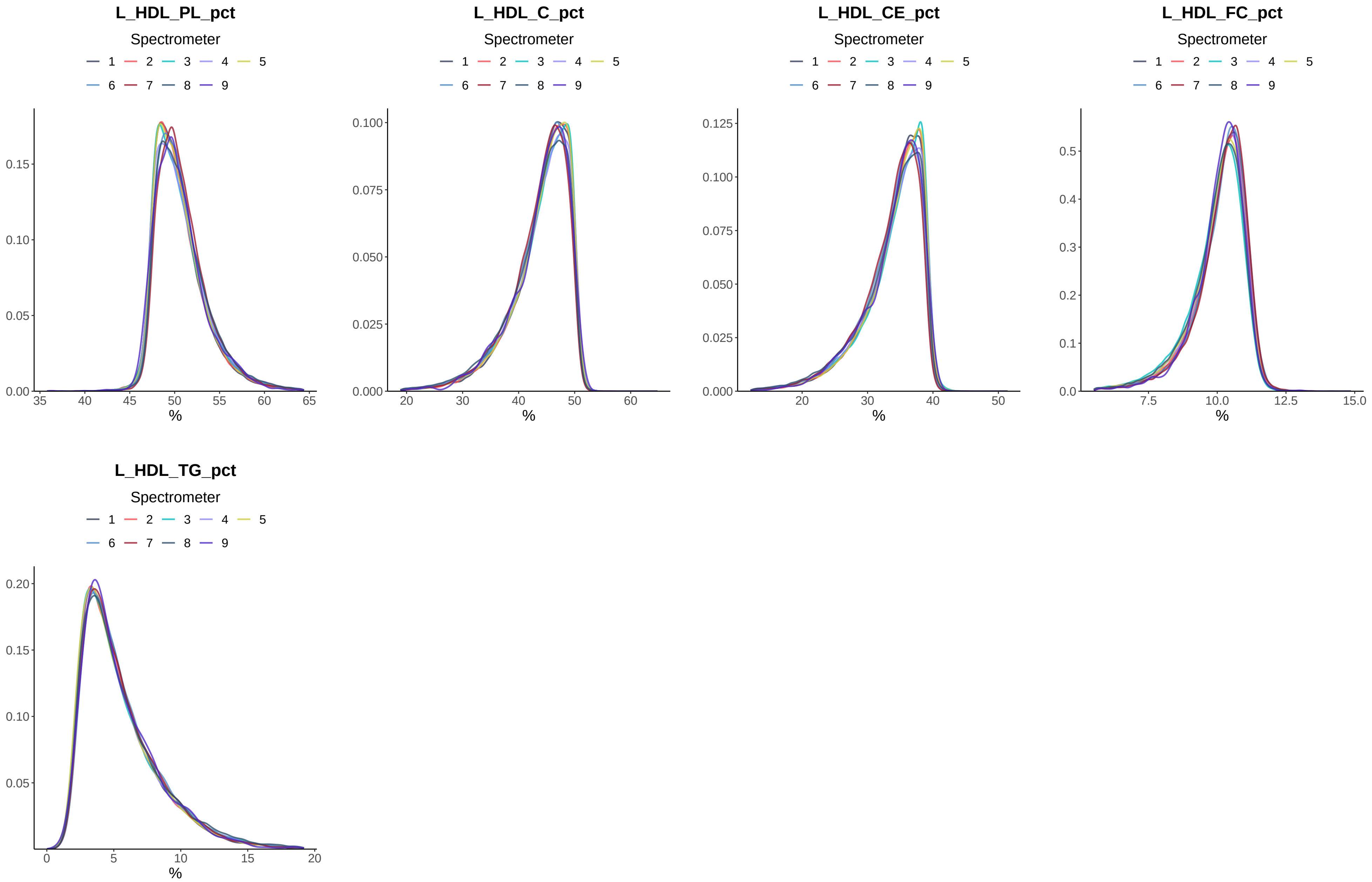
Small LDL ratios



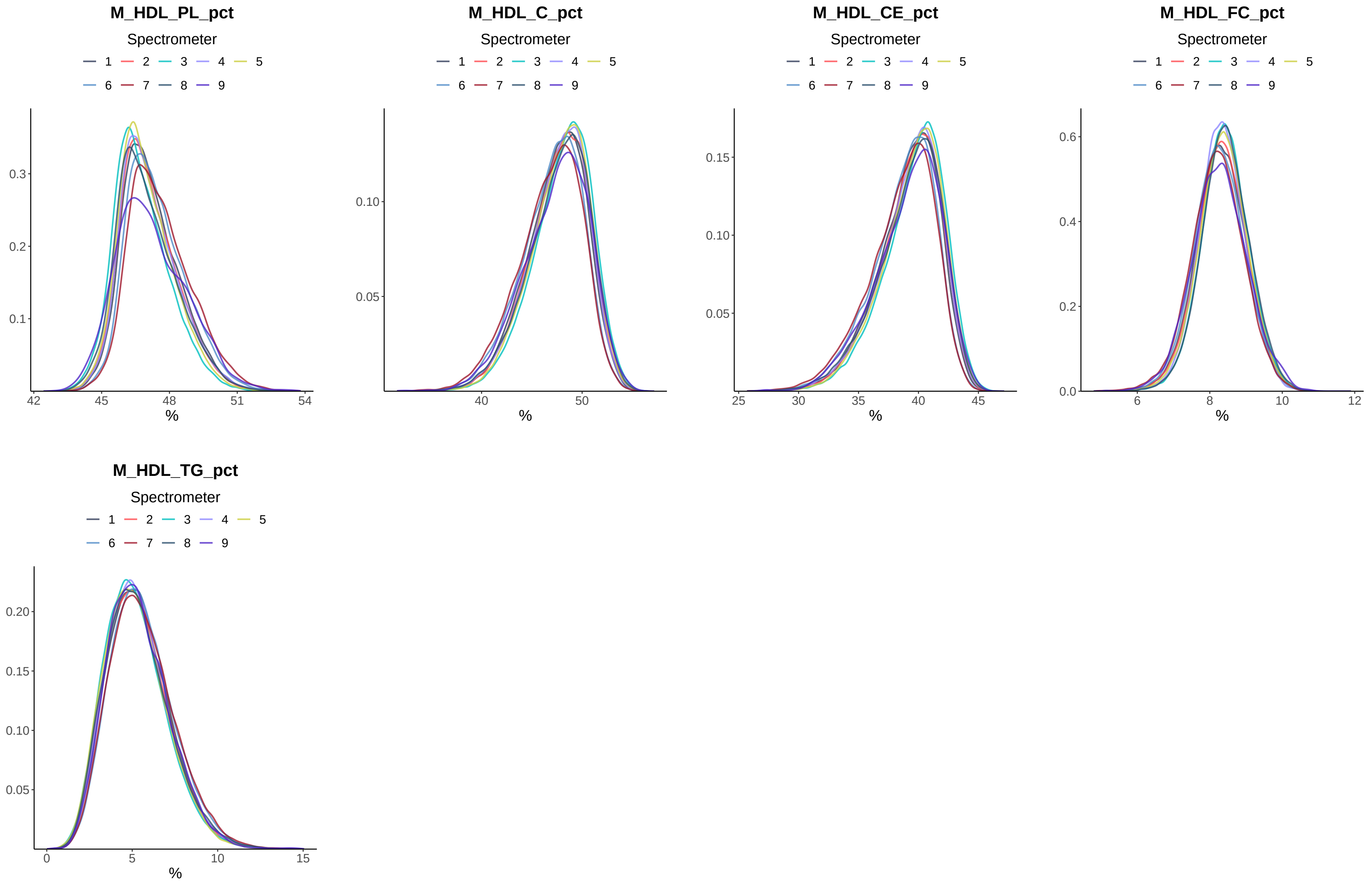
Very large HDL ratios



Large HDL ratios



Medium HDL ratios



Small HDL ratios

