

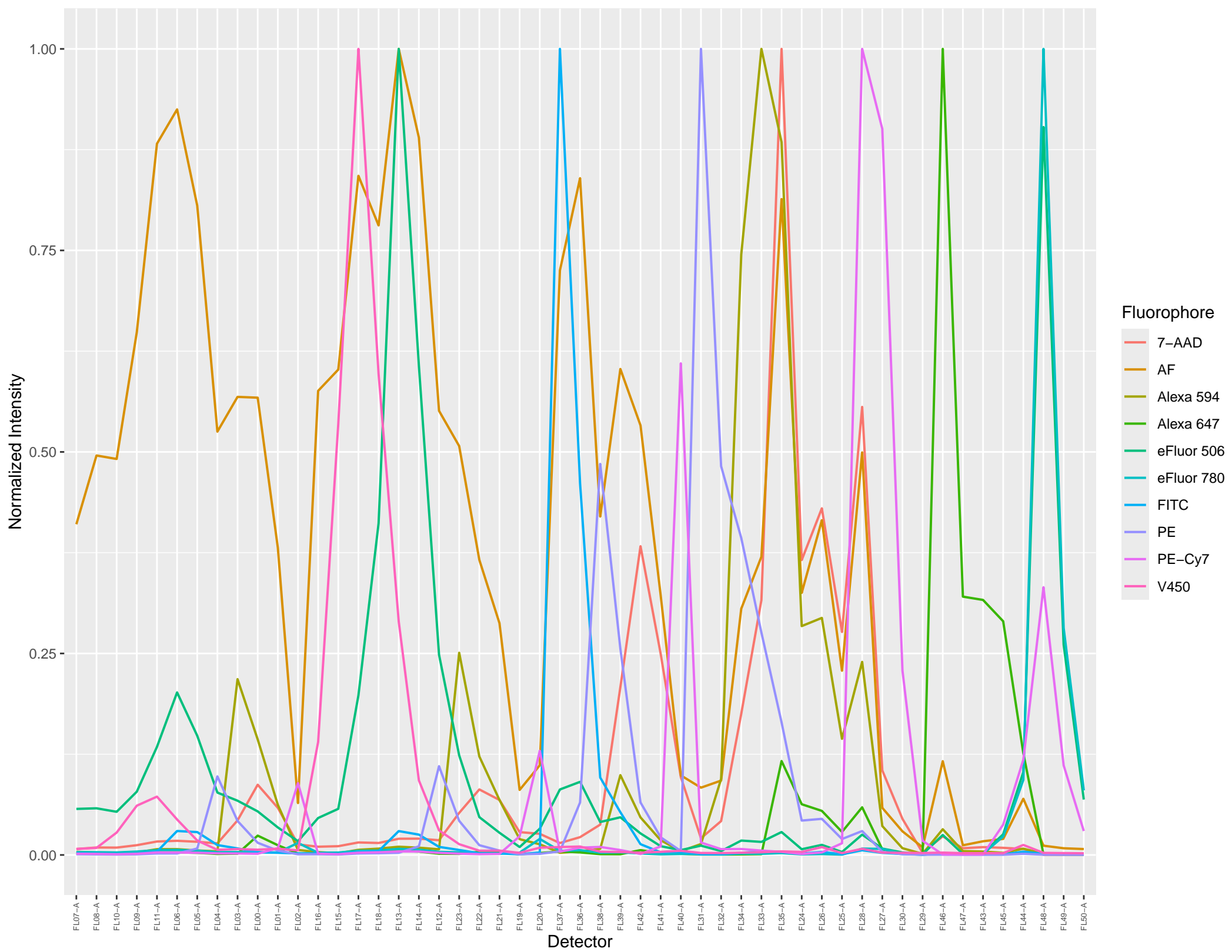
specRQC: Spectral Unmixing Quality Control Report  
Generated on: 2025-12-27 12:17:04.627821

Files Processed: 2

Total Markers: 10

Global Median RRMSE: 0.35

Global Mean RRMSE: 0.49%

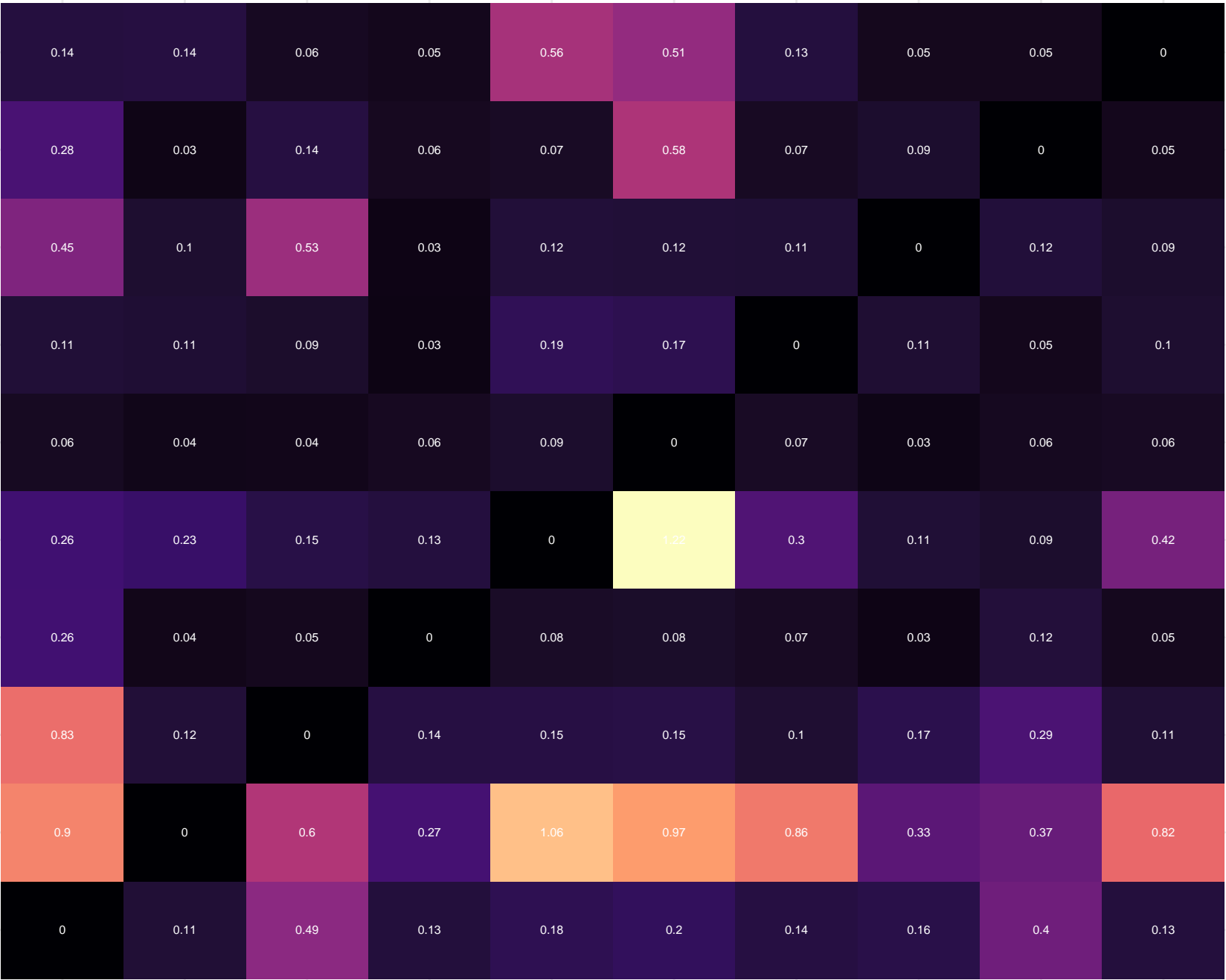


Spectral Spread Matrix

Rows: Source of noise (spilling marker). Columns: Destination of noise (receiving marker).  
Values represent the standard deviation increase in column J caused by signal in row I.

Spilling Marker (Noise Source)

V450  
PE-Cy7  
PE  
FITC  
eFluor 780  
eFluor 506  
Alexa 647  
Alexa 594  
AF  
7-AAD



Spread Factor



Receiving Marker (Noise Destination)

7-AAD

AF

Alexa 594

Alexa 647

eFluor 506

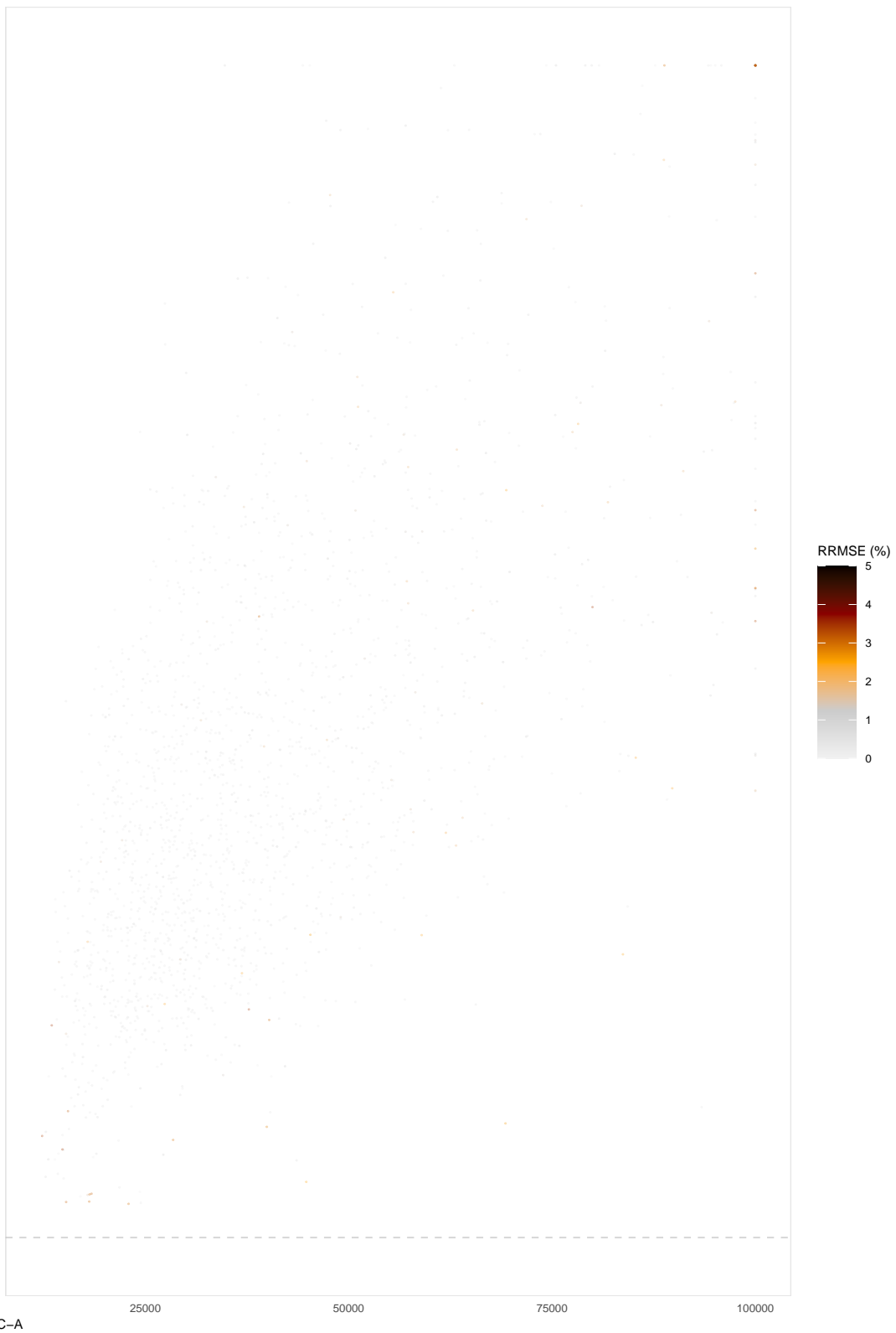
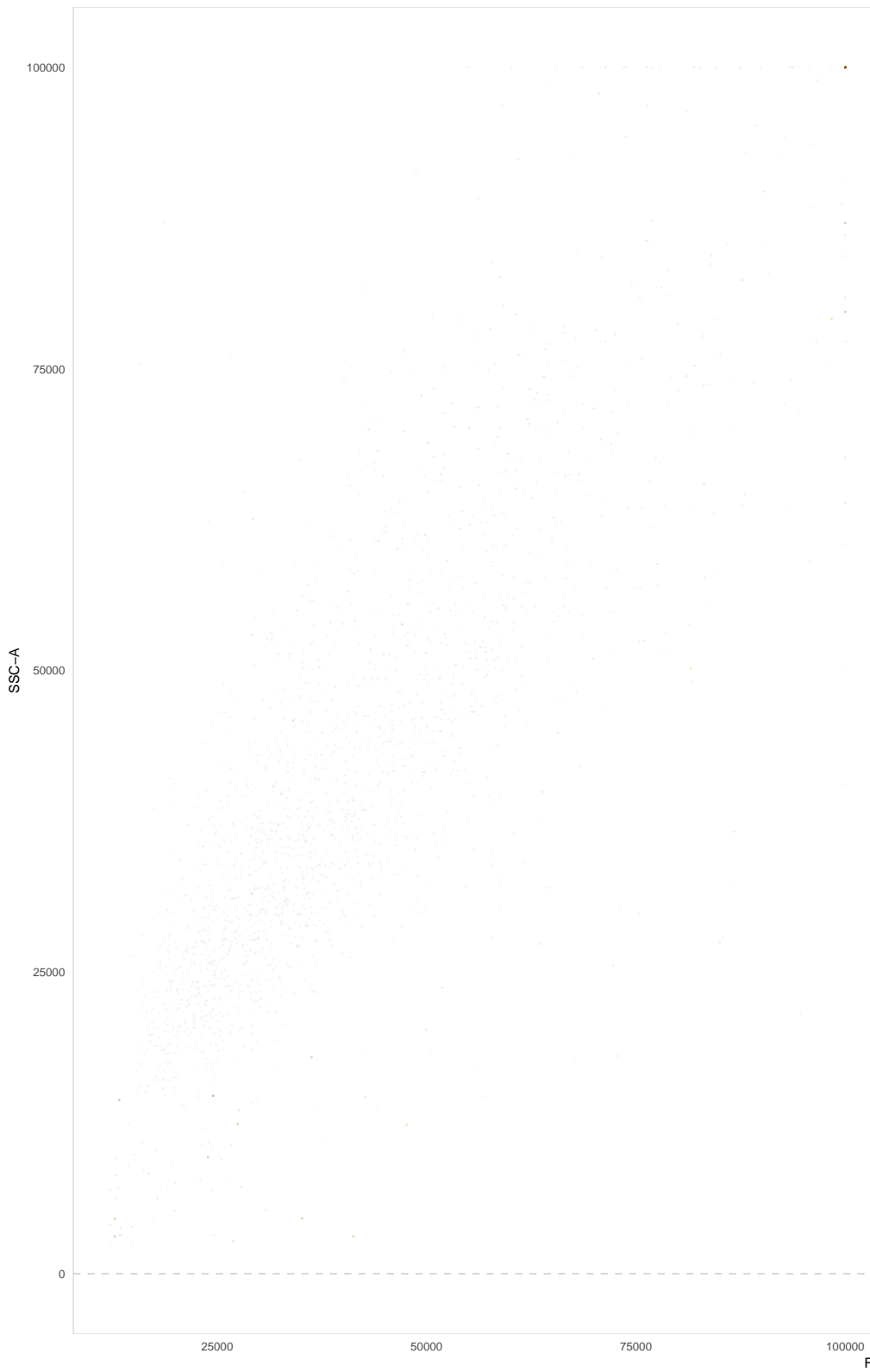
eFluor 780

FITC

PE

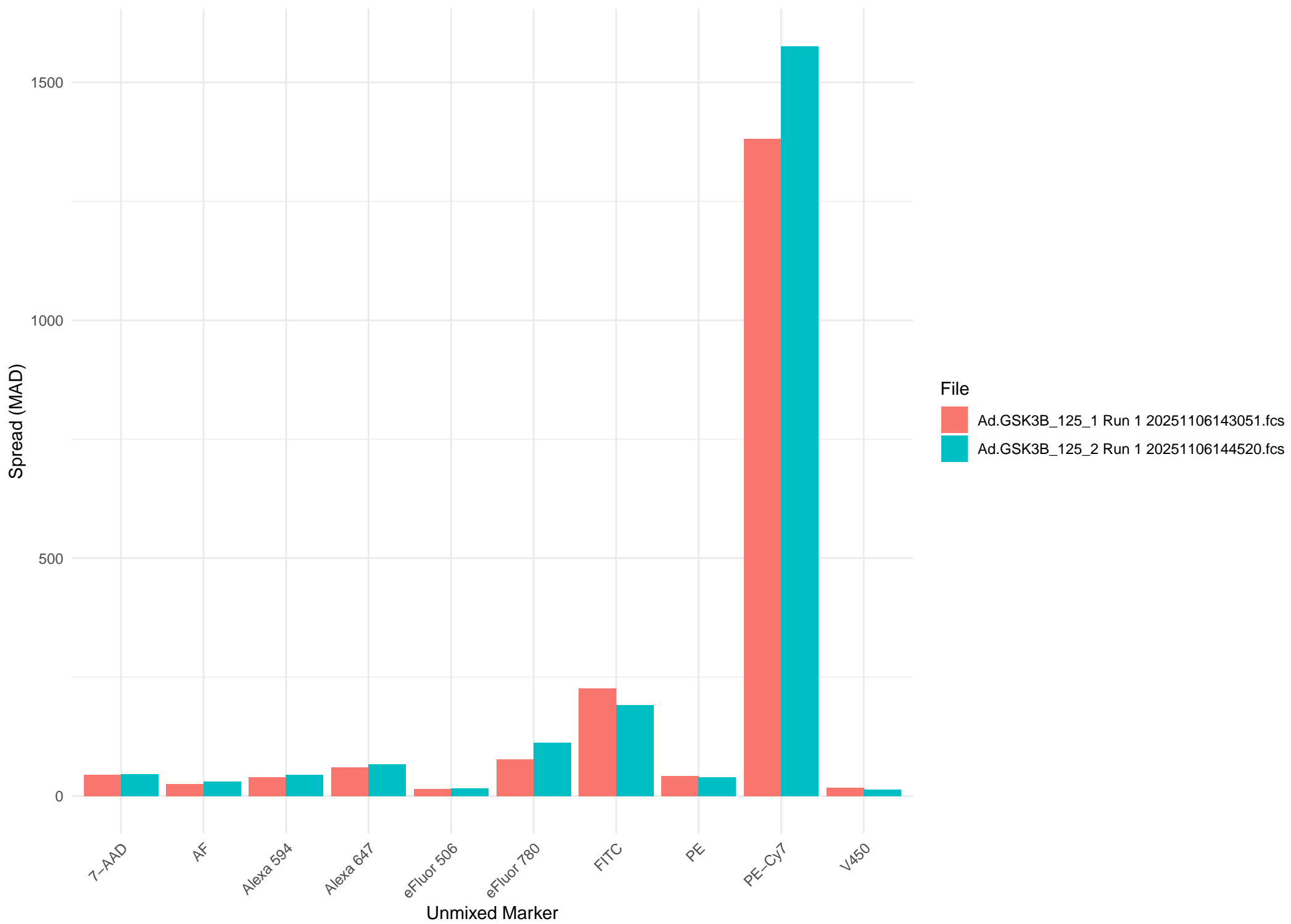
PE-Cy7

V450



## Negative Population Spread (Unmixing Noise Floor)

High MAD indicates unmixing-induced spreading error.  
This is often caused by spectral overlap with bright markers in the sample.



# Residual Contributions for Top 50 High-Error Cells

Positive residuals = under-explained signal; Negative = over-explained

