



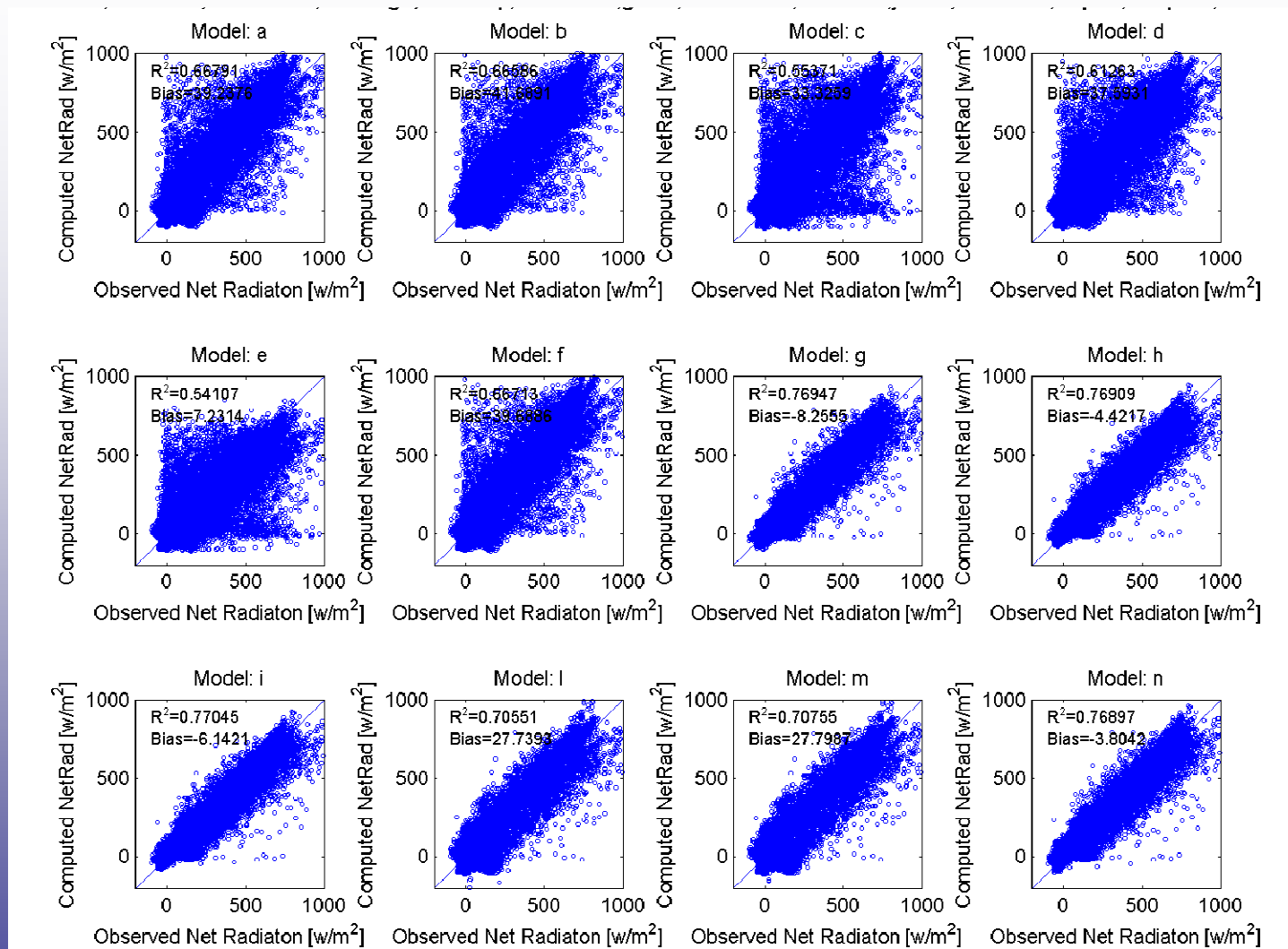
Energy budget partitioning across LBA-MIP models

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Zong-Liang Yang

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Salvador, Brazil



K34: Hourly Net Radiation



a: CLM3.0
f: DGVM3
k: sibcasa

b: CLM3.5
g: ibis
l: spac

c: clm3ootb
h: NoahSTD
m: spam

d: clm3gw
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n: ssib2

e: clm3dp
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K83: Hourly Net Radiation

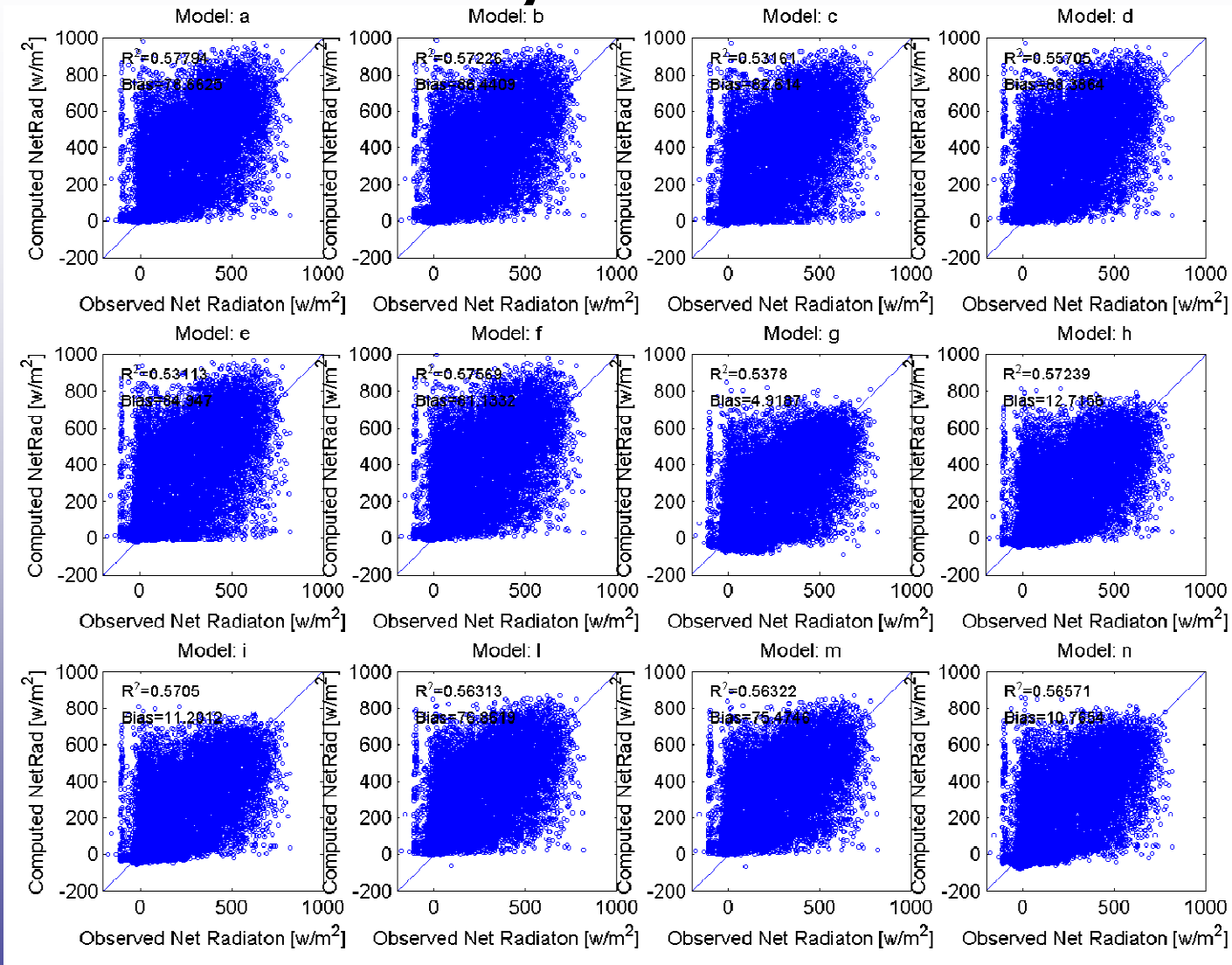


Figure 183: Hourly Net Radiation

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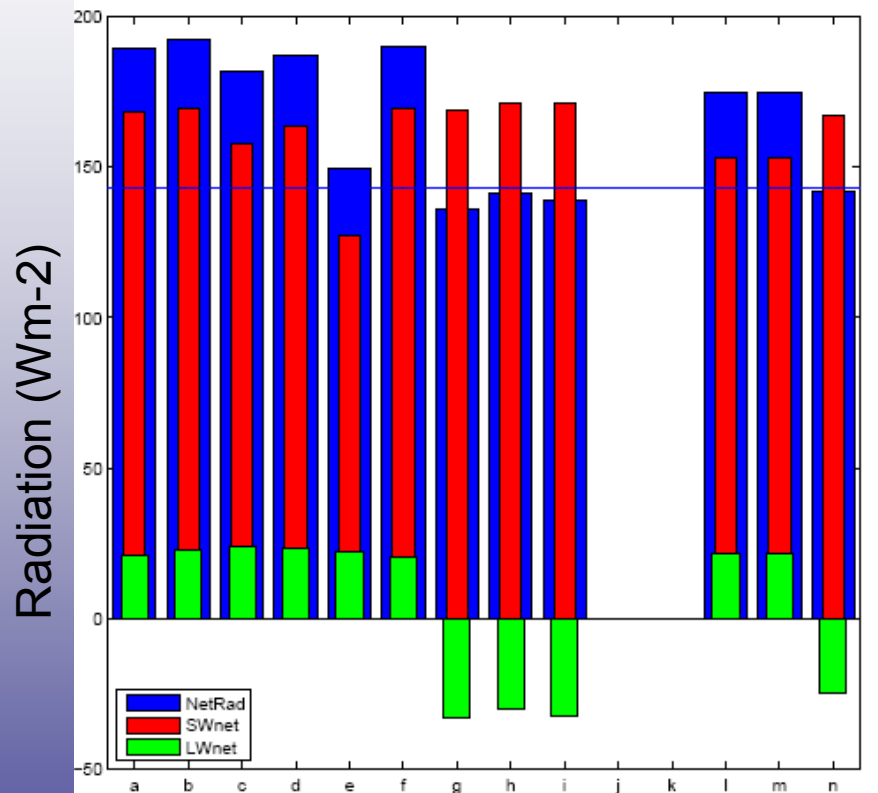
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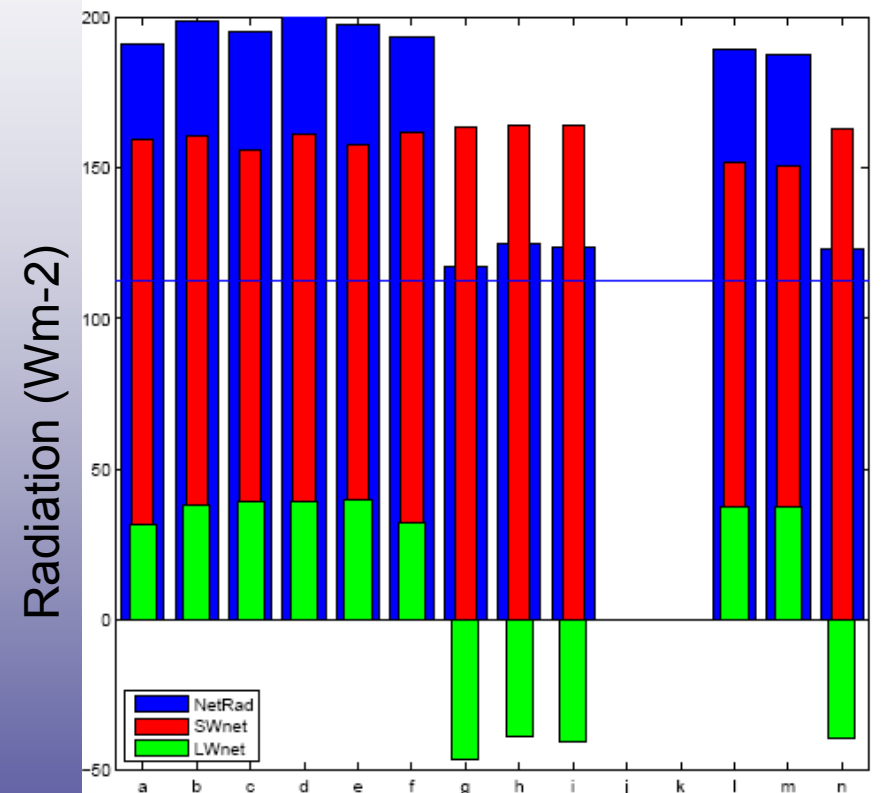


Annual Net Radiation Partitioning

K34



K83



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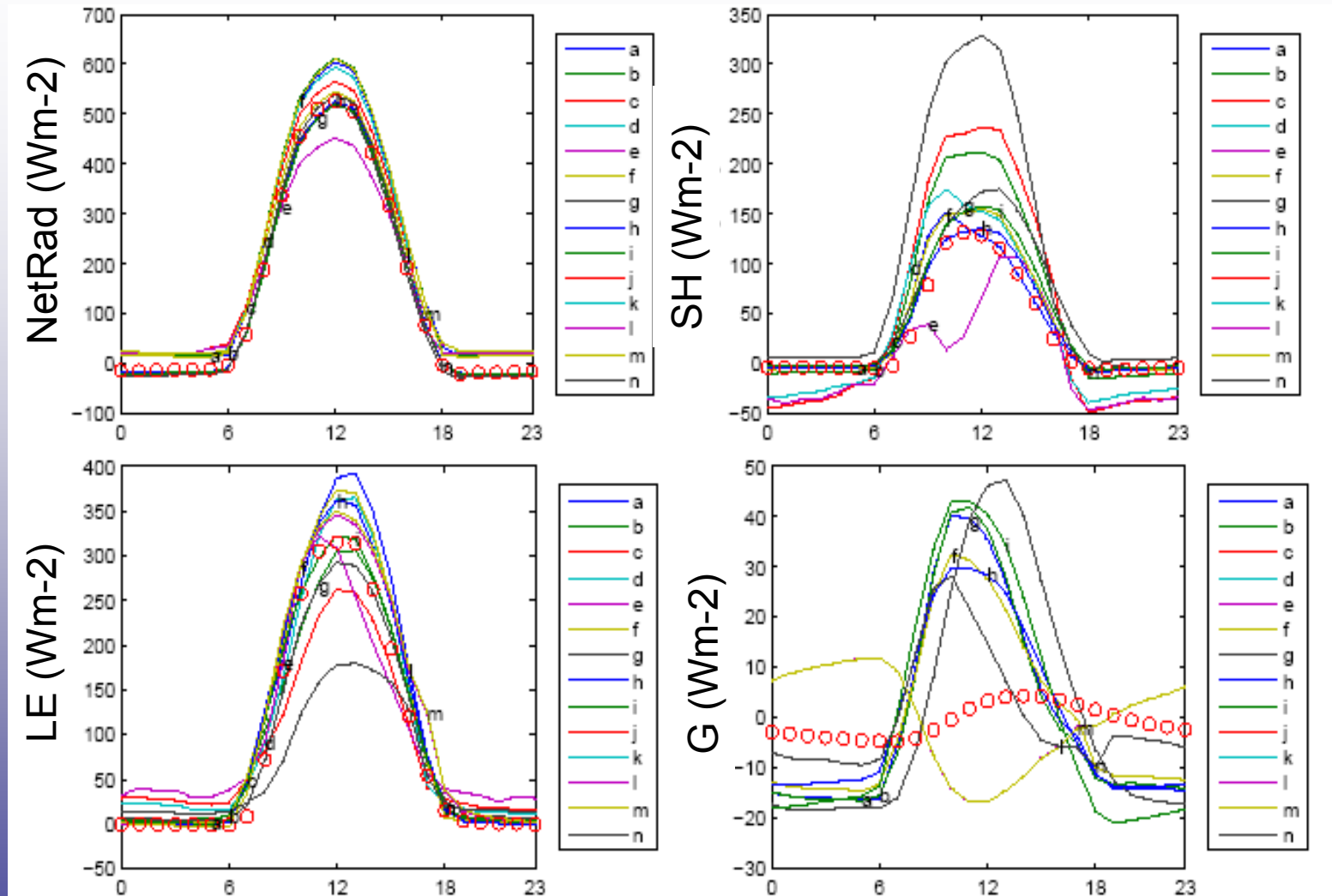
l: spac

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K34: Mean diurnal cycle of fluxes



a: CLM3.0

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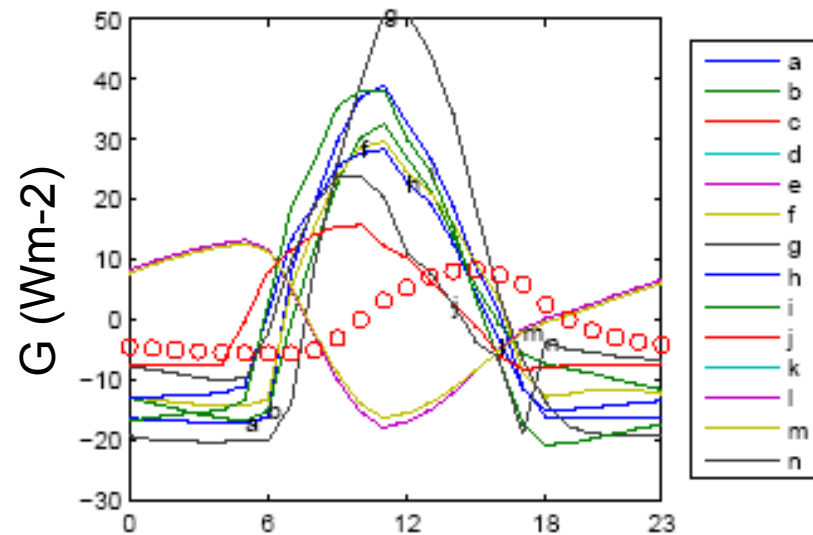
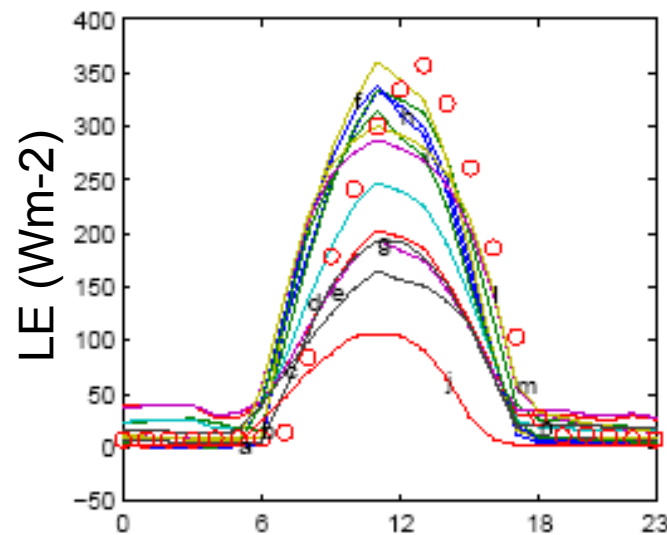
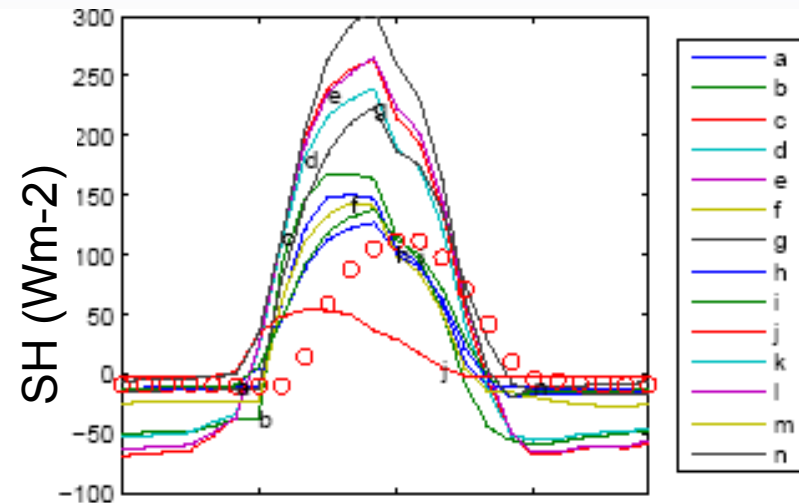
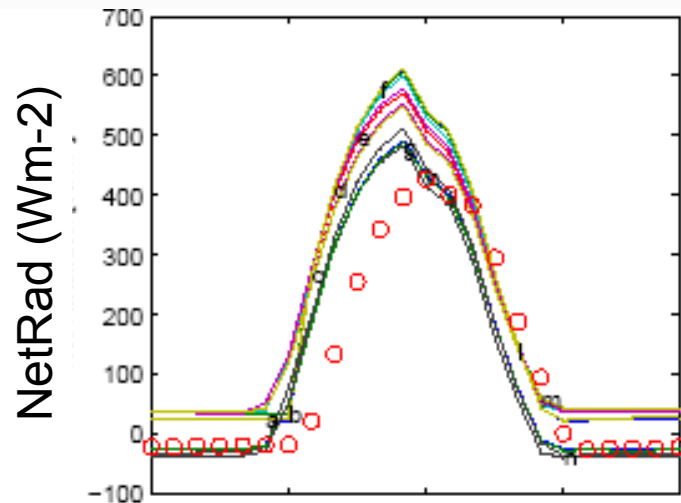
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K83: Mean diurnal cycle of fluxes



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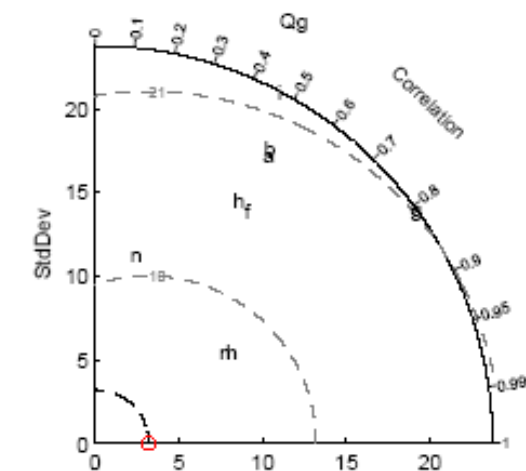
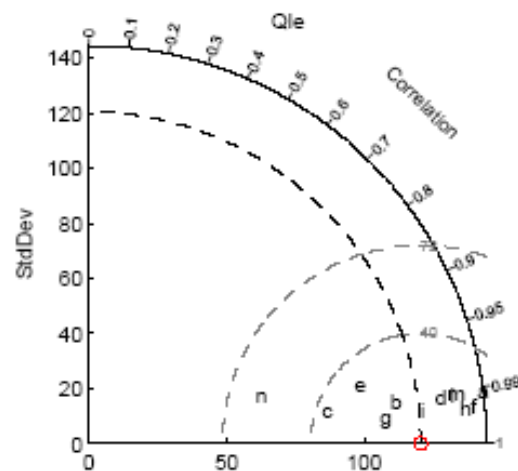
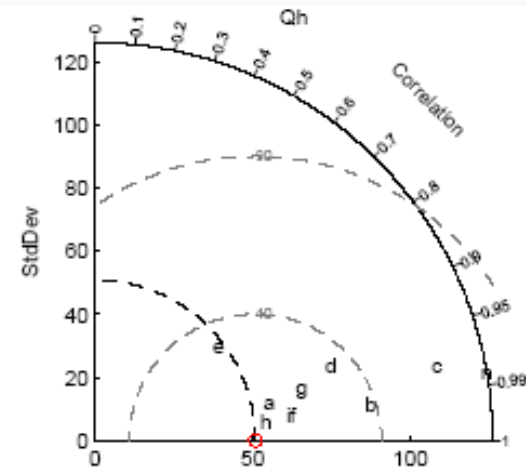
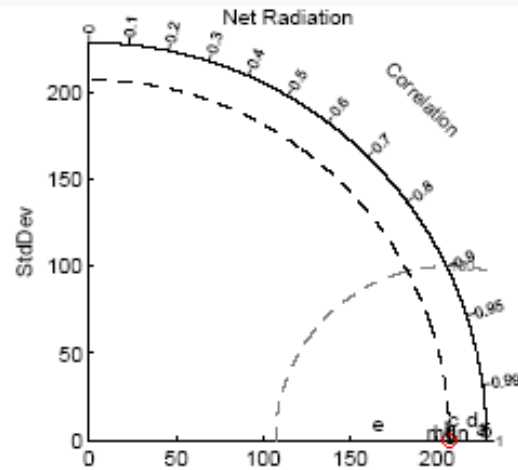
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K34: Taylor diagram of diurnal fluxes



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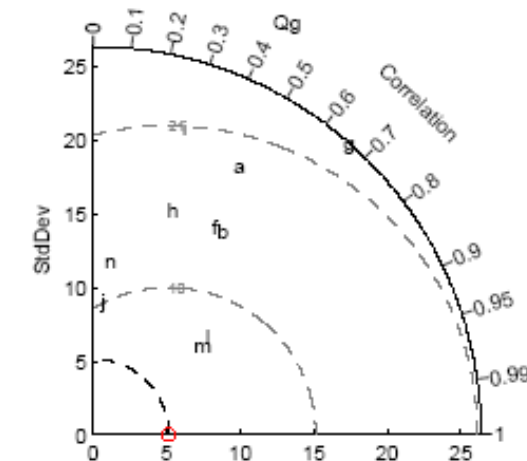
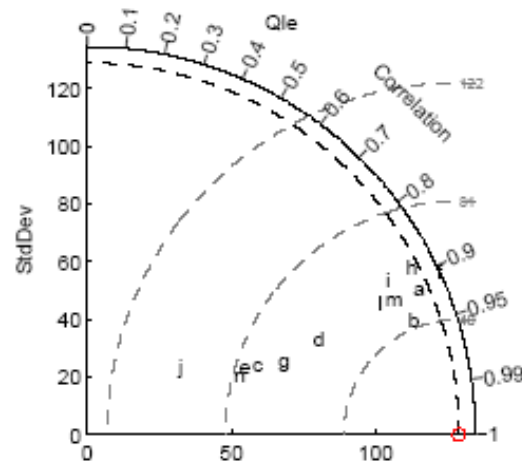
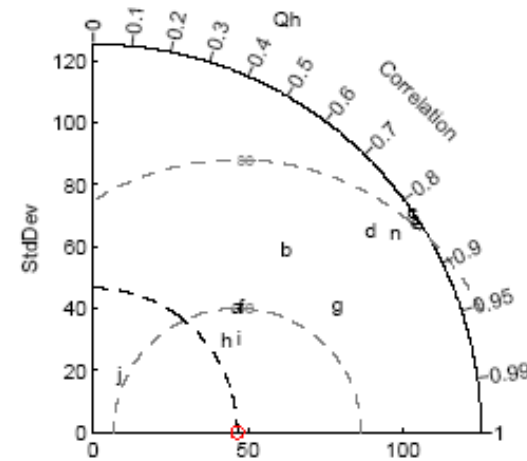
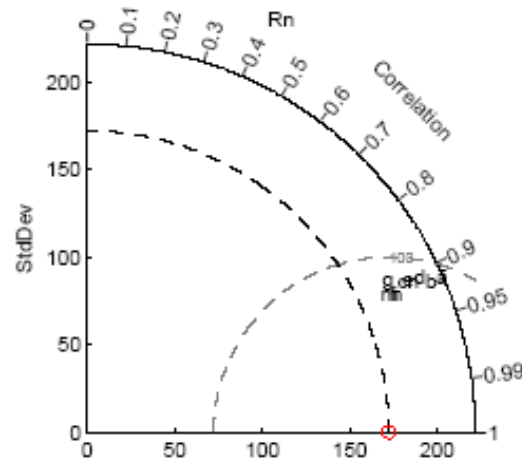
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K83: Taylor diagram of diurnal fluxes



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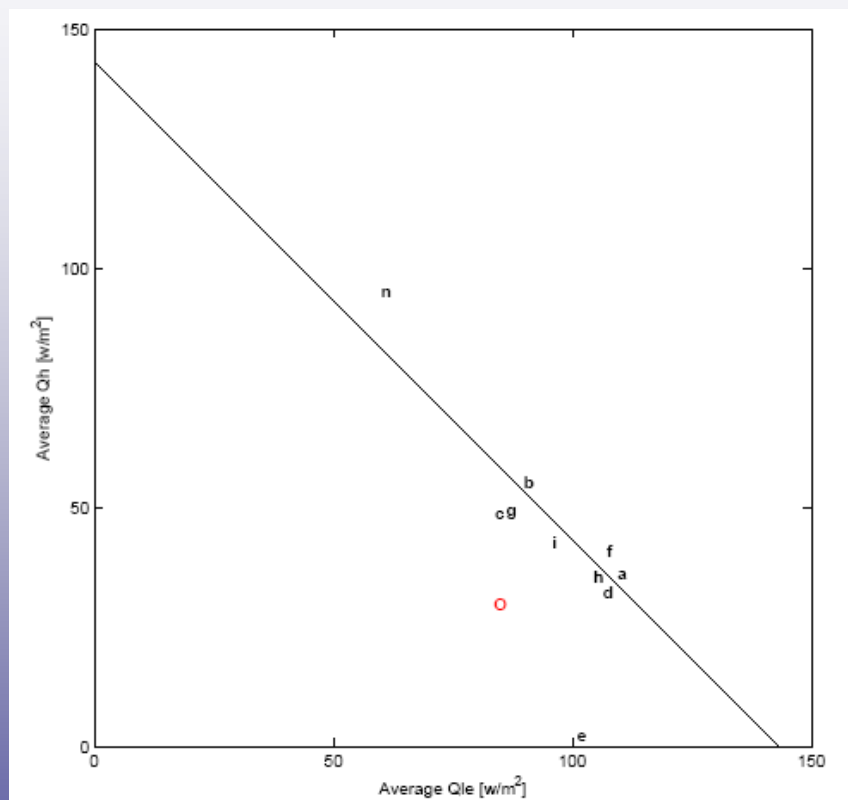
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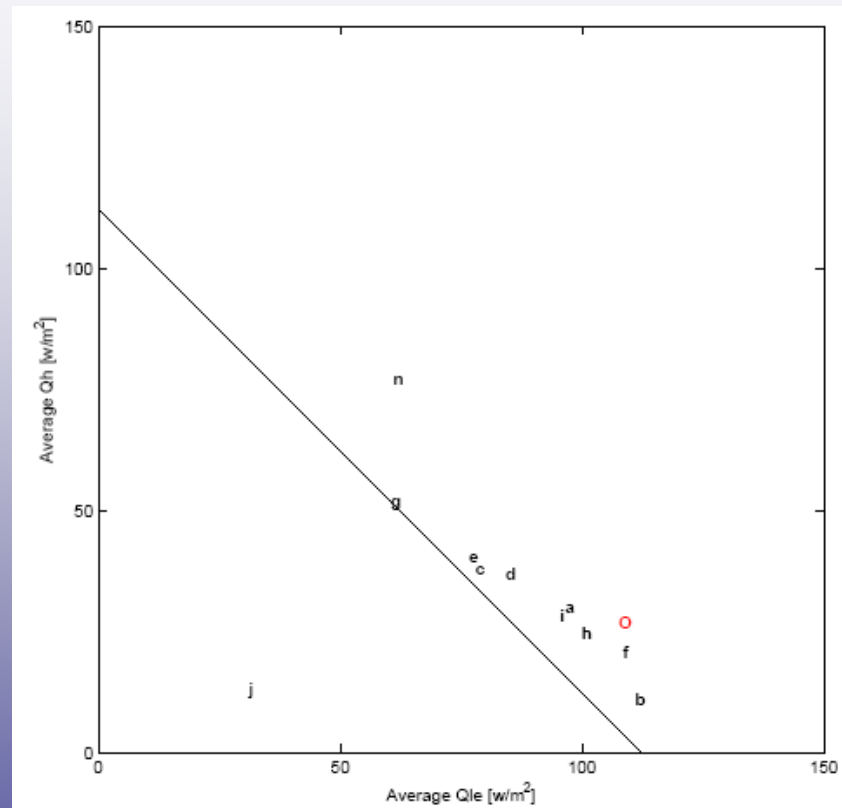


Mean SH/LE partitioning

K34



K83



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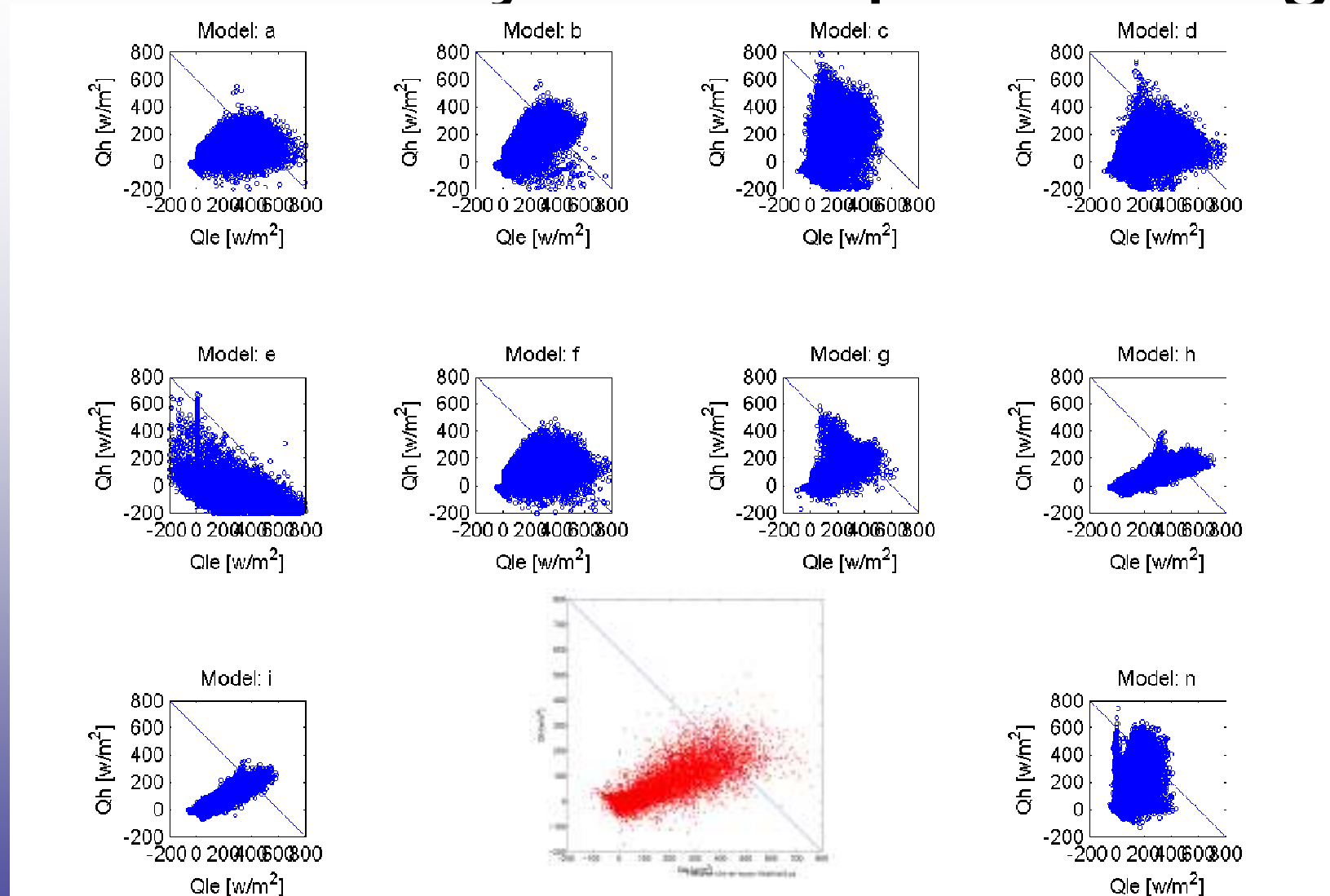
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K34: Hourly SH/LE partitioning



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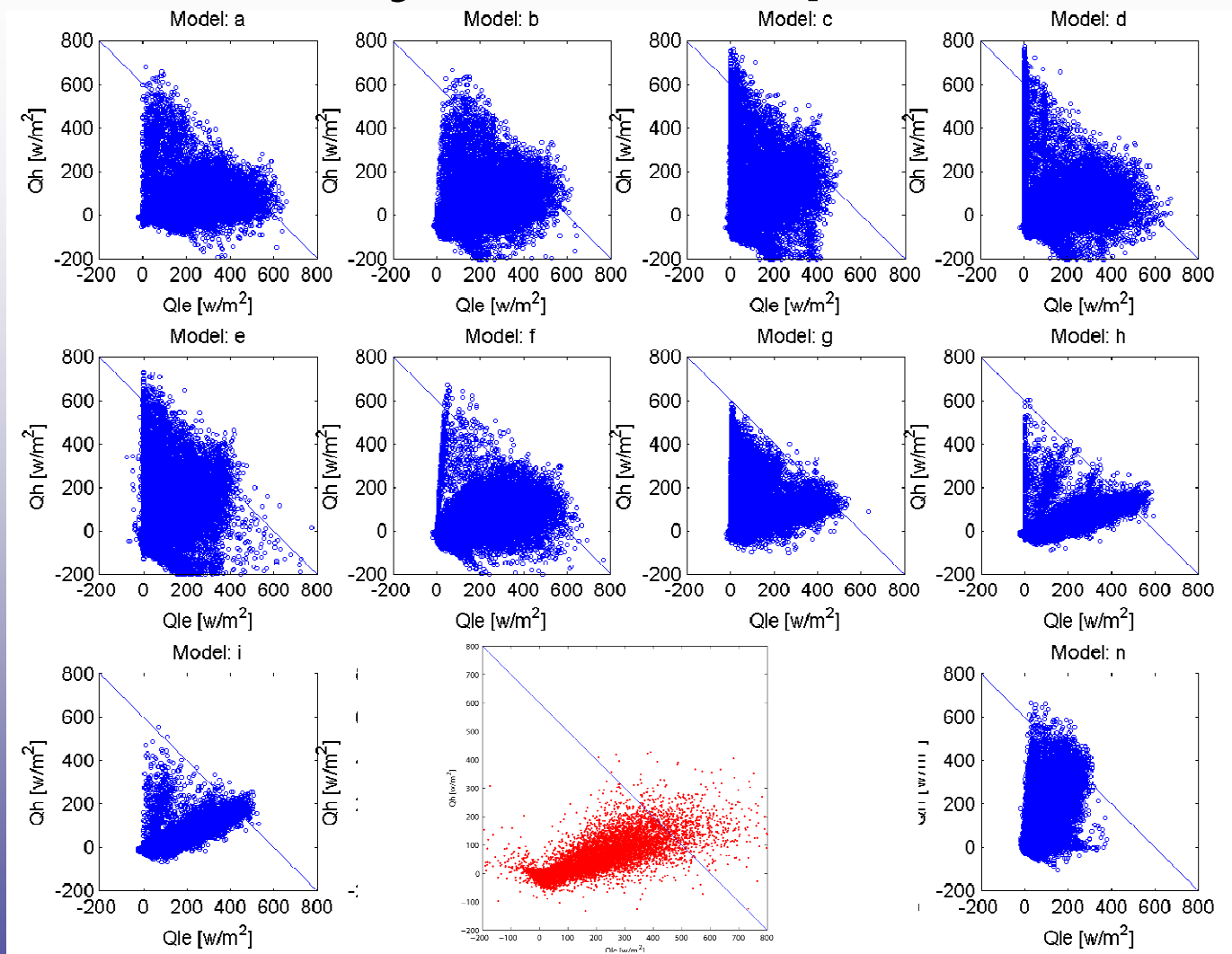
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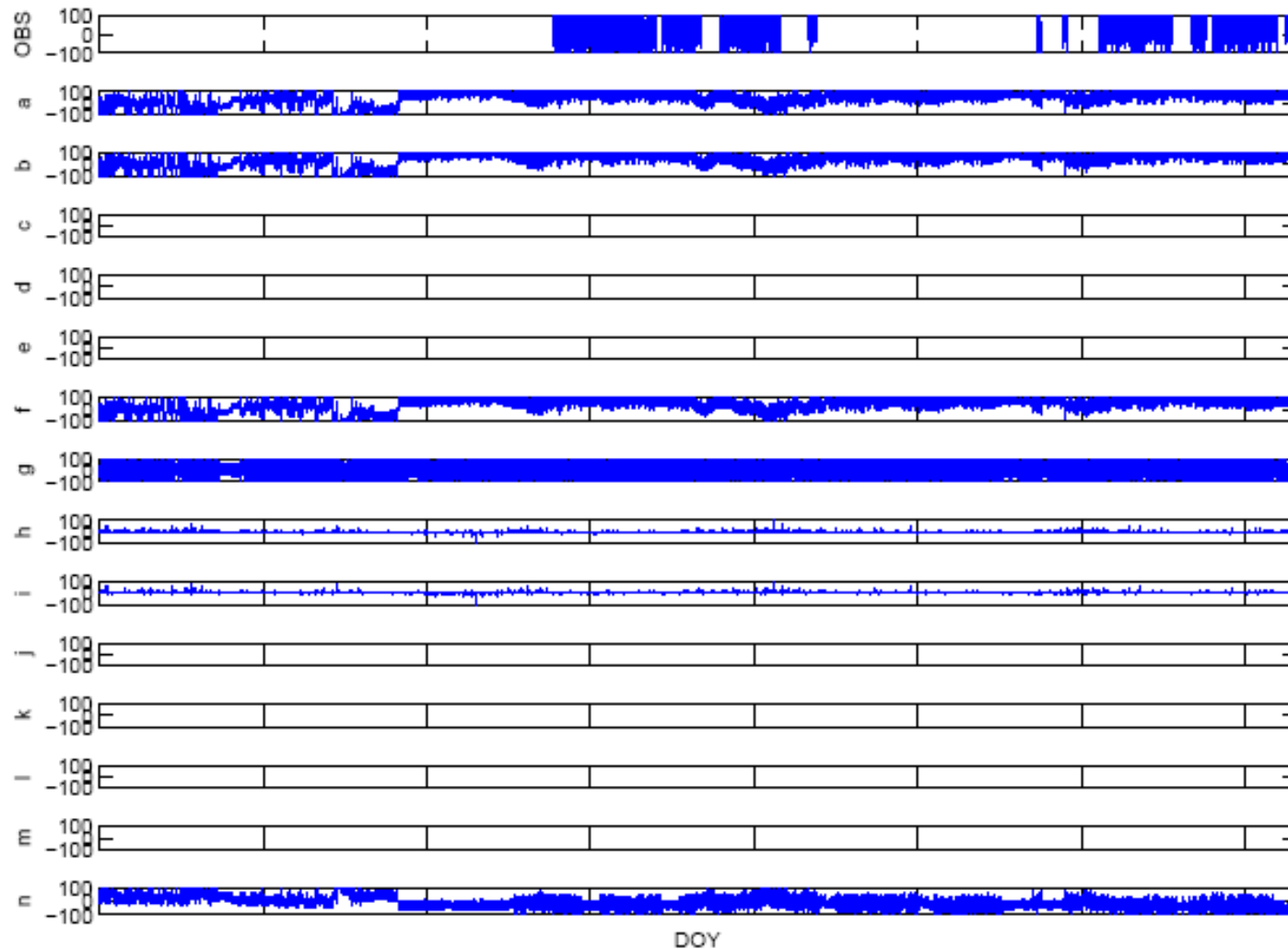
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Closure at hourly resolution remains elusive



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Summary

1. Performance at K34 across-the-board better than performance at K83
2. As expected: monthly mean performance better than more high-resolution performance
3. Data error ($SW_{net} + LW_{net} \neq R_{net}$), model error (e.g., no closure), consistency issues (signs, lengths, missing variables) evident