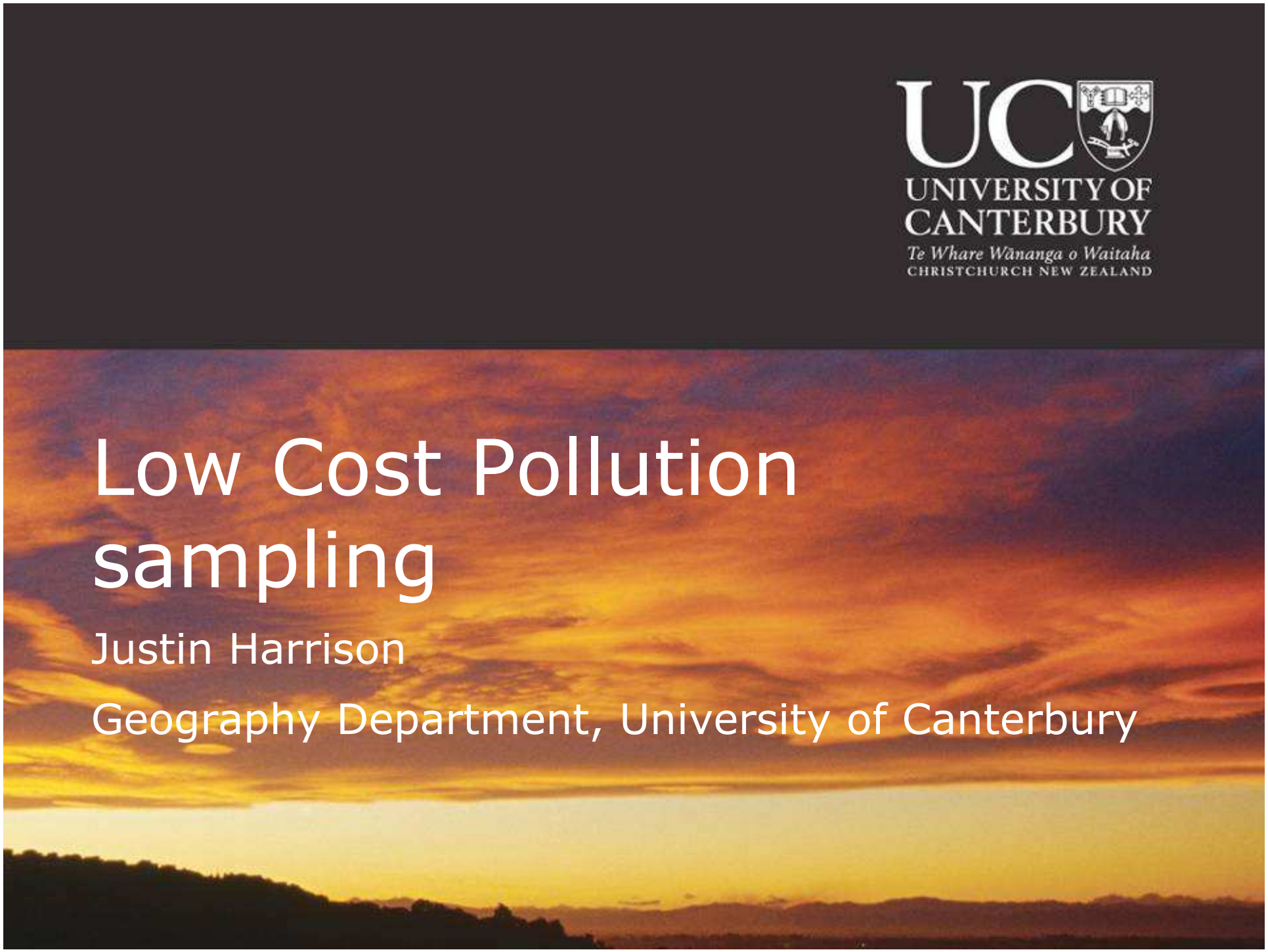

Low Cost Pollution sampling

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Ways to find a LAMAs worst emmissions

Low Cost Samplers: Background

- NES requires monitoring in ‘likely’ locations
- Low cost methods useful to ID ‘likely’ sites
- Better spatial information – confirm suitability of monitoring sites
- Generally quick to set up
- Generally less problematic
  - Lower noise
  - No need for air conditioning
  - Low power needs
- May not be NES compliant for monitoring

Low Cost Samplers: Options

Airmetrics
MiniVol

Ecotech
MicroVol

Both are gravimetric methods, capable of measuring TSP, PM_{10} or $PM_{2.5}$

(Negretti head + pump)

TSI
Dust Trak

Light scattering – can measure PM_{10}, PM_4, $PM_{2.5}$, or PM_1

Low Cost Samplers: Limitations

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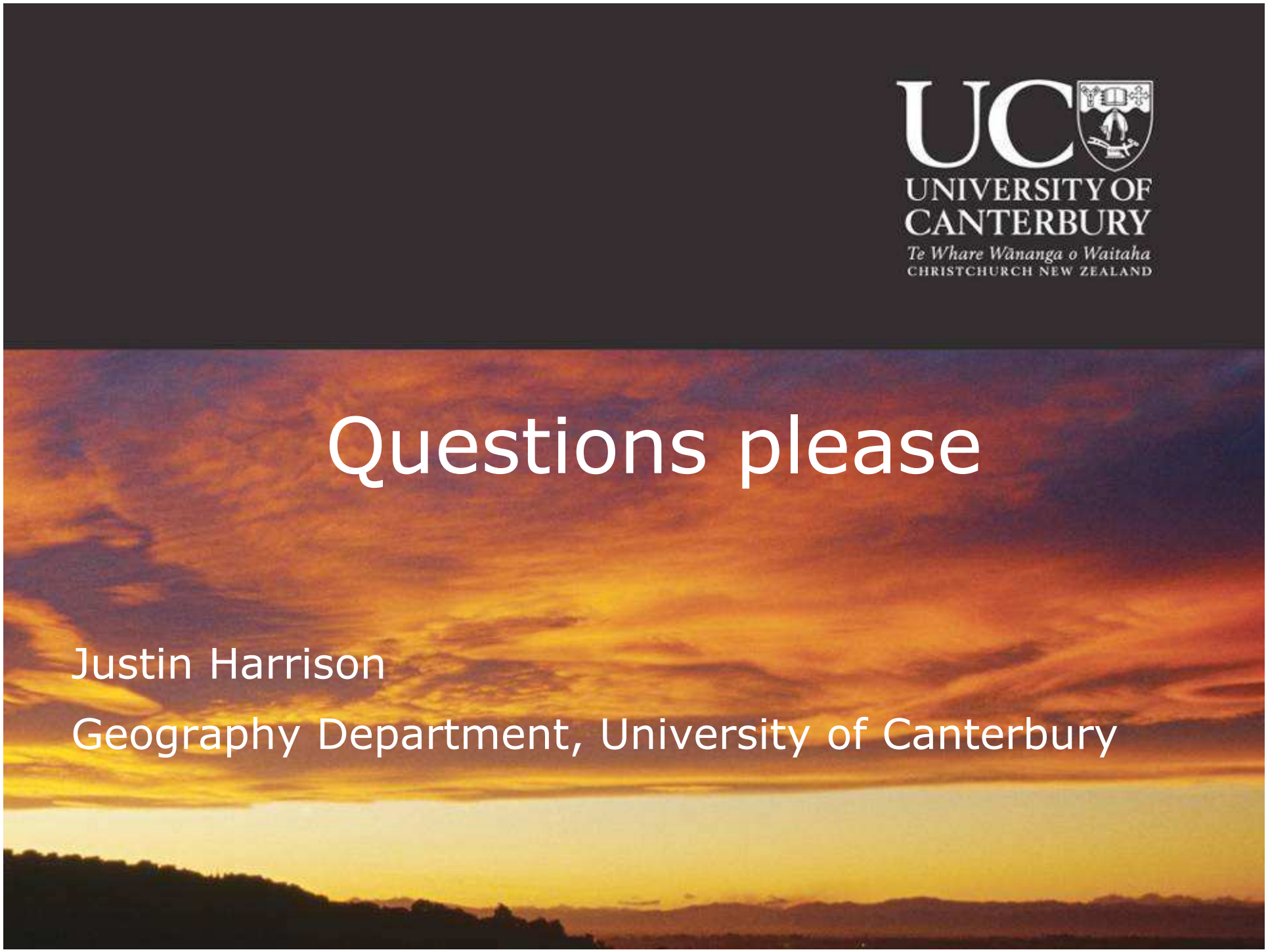
- Filters & batteries changed daily (labour intensive)
- Limited supporting met data
  - MiniVol has no met sensor support
  - MicroVol supports met sensors but only 200pt log
- Low volume methods
  - MiniVol 5L/min
  - MicroVol 3L/min
  - Dust trak 1.7L/min
- Dust Trak – calibration issues (therefore mainly suited to looking at relative changes)

Low Cost Samplers: A New Option

The Sample Master 7000

- PM_{10}, $PM_{2.5}$, or TSP
- 7 'active' inlets plus 1 control inlet
  - (only one active at any given time)
- Met sensors:
  - Wind speed
  - Wind direction
  - Air Temp
  - RH
  - Space for up to 5 additional sensors
- Memory: 62,000 data points
- Programmable
  - Sequential
  - Wind direction controlled
  - Wind speed controlled
  - etc
- Commercial options being looked at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Questions please
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