

## skfda.datasets.make\_multimodal\_landmarks

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**skfda.datasets.make\_multimodal\_landmarks**(*n\_samples: int = 15, \*, n\_modes: int = 1, ndim\_domain: int = 1, ndim\_image: int = 1, start: float = -1, stop: float = 1, std: float = 0.05, random\_state=None*) [\[source\]](#)

Generate landmarks points.

Used by `make_multimodal_samples()` to generate the location of the landmarks.

Generates a matrix containing the landmarks or locations of the modes of the samples generates by `make_multimodal_samples()`.

If the same random state is used when generating the landmarks and multimodal samples, these will correspond to the position of the modes of the multimodal samples.

- Parameters:**
- **n\_samples** – Total number of samples.
  - **n\_modes** – Number of modes of each sample.
  - **ndim\_domain** – Number of dimensions of the domain.
  - **ndim\_image** – Number of dimensions of the image
  - **start** – Starting point of the samples. In multidimensional objects the starting point of the axis.
  - **stop** – Ending point of the samples. In multidimensional objects the ending point of the axis.
  - **std** – Standard deviation of the variation of the modes location.
  - **random\_state** – Random state.

**Returns:** `np.ndarray` with the location of the modes, where the component (i,j,k) corresponds to the mode k of the image dimension j of the sample i.