

## Code\_updates\_1021

### Pricing:

1. Modify **black\_pricing.py**:
  - Add **black\_vector** function
  - Add **black\_matrix** function
2. Add pdf\_calculation.py:
  - **numerical\_pdf** function
  - **lognormal\_pdf** function
3. Add arbitrage\_check.py:
  - **arbitrage\_check** function
4. Add Data\_processor.py:
  - **data\_reader** function
  - **set\_label** function
  - **start\_params** function
5. Modify SABR.py:
  - Remove **objfunc**, **calibration** functions (Only return SABR\_vols)

### Fitter:

1. Modify fitting.py:
  - Add **objfunc**, **calibration** functions

### Bin:

1. Add ArbitrageCheck\_driver.ipynb
2. Modify fitting\_driver.ipynb