# Supplementary materials for
# Temporal Segmentation of Fine-grained Semantic action:
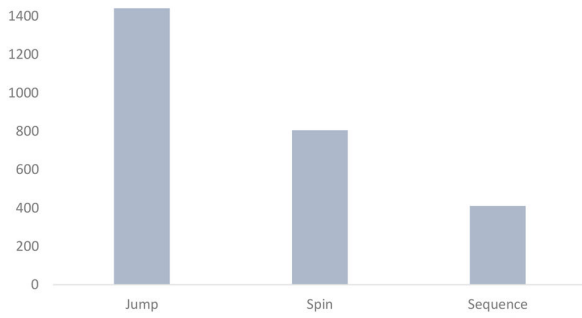# A Motion-Centered Figure Skating Dataset
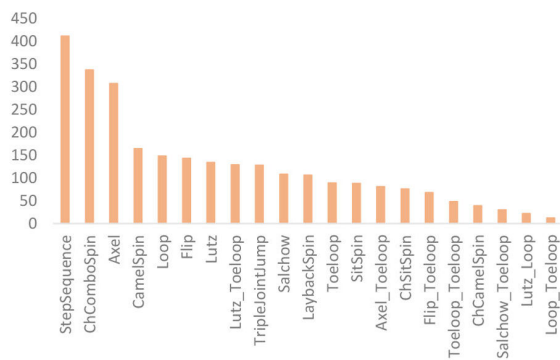
## Paper ID:3224

## Dataset Statistics

We present the histogram of set classes in MCFS-4 and its subset classes (MCFS-22) and element classes (MCFS-130) in Figure 1. All levels drop the category "NONE".
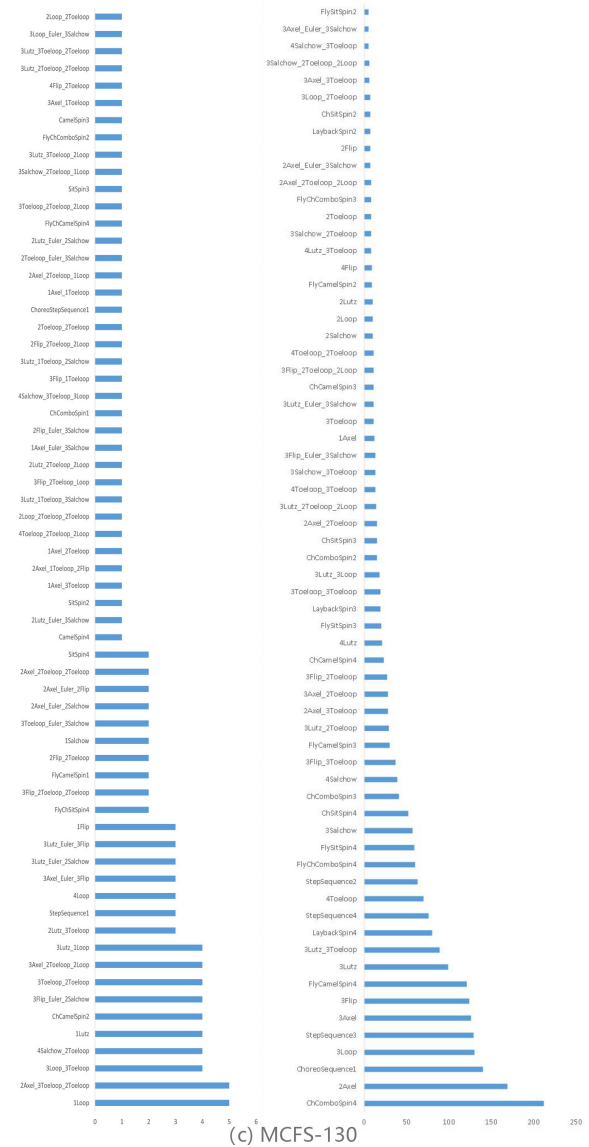
## List of MCFS Classes

In Table 1, we present the category name for all classes in the MCFS-130 dataset. We also provide the class id of each category in the subsets (MCFS-22) and sets (MCFS-4) respectively.



Figure 1: Frequency of set classes in (a) MCF-4 as well as its subset classes in (b) MCFS-22 and element classes in (c) MCFS-130.

| ClassID | Class name(MCFS-130) | Class name(MCFS-22) | Class name(MCFS-4) |
|---|---|---|---|
| 0 | NONE | NONE | NONE |
| 1 | ChComboSpin4 | StepSequence | Jump |
| 2 | 2Axel | ChComboSpin | Spin |
| 3 | ChoreoSequence1 | Axel | Sequence |
| 4 | 3Loop | CamelSpin | |
| 5 | StepSequence3 | Loop | |
| 6 | 3Axel | Flip | |
| 7 | 3Flip | Lutz | |
| 8 | FlyCamelSpin4 | Lutz_Toeloop | |
| 9 | 3Lutz | TripleJointJump | |
| 10 | 3Lutz_3Toeloop | Salchow | |
| 11 | LaybackSpin4 | LaybackSpin | |
| 12 | StepSequence4 | Toeloop | |
| 13 | 4Toeloop | SitSpin | |
| 14 | StepSequence2 | Axel_Toeloop | |
| 15 | FlyChComboSpin4 | ChSitSpin | |
| 16 | FlySitSpin4 | Flip_Toeloop | |
| 17 | 3Salchow | Toeloop_Toeloop | |
| 18 | ChSitSpin4 | ChCamelSpin | |
| 19 | ChComboSpin3 | Salchow_Toeloop | |
| 20 | 4Salchow | Lutz_Loop | |
| 21 | 3Flip_3Toeloop | Loop_Toeloop | |
| 22 | FlyCamelSpin3 | | |
| 23 | 3Lutz_2Toeloop | | |
| 24 | 2Axel_3Toeloop | | |
| 25 | 3Axel_2Toeloop | | |
| 26 | 3Flip_2Toeloop | | |
| 27 | ChCamelSpin4 | | |
| 28 | 4Lutz | | |
| 29 | FlySitSpin3 | | |
| 30 | LaybackSpin3 | | |
| 31 | 3Toeloop_3Toeloop | | |
| 32 | 3Lutz_3Loop | | |
| 33 | ChComboSpin2 | | |
| 34 | ChSitSpin3 | | |
| 35 | 2Axel_2Toeloop | | |
| 36 | 3Lutz_2Toeloop_2Loop | | |
| 37 | 4Toeloop_3Toeloop | | |
| 38 | 3Salchow_3Toeloop | | |
| 39 | 3Flip_Euler_3Salchow | | |

| | | | |
|---|---|---|---|
| 40 | 1Axel | | |
| 41 | 3Toeloop | | |
| 42 | 3Lutz_Euler_3Salchow | | |
| 43 | ChCamelSpin3 | | |
| 44 | 3Flip_2Toeloop_2Loop | | |
| 45 | 4Toeloop_2Toeloop | | |
| 46 | 2Salchow | | |
| 47 | 2Loop | | |
| 48 | 2Lutz | | |
| 49 | FlyCamelSpin2 | | |
| 50 | 4Flip | | |
| 51 | 4Lutz_3Toeloop | | |
| 52 | 3Salchow_2Toeloop | | |
| 53 | 2Toeloop | | |
| 54 | FlyChComboSpin3 | | |
| 55 | 2Axel_2Toeloop_2Loop | | |
| 56 | 2Axel_Euler_3Salchow | | |
| 57 | 2Flip | | |
| 58 | LaybackSpin2 | | |
| 59 | ChSitSpin2 | | |
| 60 | 3Loop_2Toeloop | | |
| 61 | 3Axel_3Toeloop | | |
| 62 | 3Salchow_2Toeloop_2Loop | | |
| 63 | 4Salchow_3Toeloop | | |
| 64 | 3Axel_Euler_3Salchow | | |
| 65 | FlySitSpin2 | | |
| 66 | 1Loop | | |
| 67 | 2Axel_3Toeloop_2Toeloop | | |
| 68 | 3Loop_3Toeloop | | |
| 69 | 4Salchow_2Toeloop | | |
| 70 | 1Lutz | | |
| 71 | ChCamelSpin2 | | |
| 72 | 3Flip_Euler_2Salchow | | |
| 73 | 3Toeloop_2Toeloop | | |
| 74 | 3Axel_2Toeloop_2Loop | | |
| 75 | 3Lutz_1Loop | | |
| 76 | 2Lutz_3Toeloop | | |
| 77 | StepSequence1 | | |
| 78 | 4Loop | | |
| 79 | 3Axel_Euler_3Flip | | |
| 80 | 3Lutz_Euler_2Salchow | | |
| 81 | 3Lutz_Euler_3Flip | | |
| 82 | 1Flip | | |
| 83 | FlyChSitSpin4 | | |
| 84 | 3Flip_2Toeloop_2Toeloop | | |
| 85 | FlyCamelSpin1 | | |
| 86 | 2Flip_2Toeloop | | |
| 87 | 1Salchow | | |
| 88 | 3Toeloop_Euler_3Salchow | | |
| 89 | 2Axel_Euler_2Salchow | | |
| 90 | 2Axel_Euler_2Flip | | |
| 91 | 2Axel_2Toeloop_2Toeloop | | |
| 92 | SitSpin4 | | |
| 93 | CamelSpin4 | | |
| 94 | 2Lutz_Euler_3Salchow | | |
| 95 | SitSpin2 | | |

| | | | |
|---|---|---|---|
| 96 | 1Axel_3Toeloop | | |
| 97 | 2Axel_1Toeloop_2Flip | | |
| 98 | 1Axel_2Toeloop | | |
| 99 | 4Toeloop_2Toeloop_2Loop | | |
| 100 | 2Loop_2Toeloop_2Toeloop | | |
| 101 | 3Lutz_1Toeloop_3Salchow | | |
| 102 | 3Flip_2Toeloop_Loop | | |
| 103 | 2Lutz_2Toeloop_2Loop | | |
| 104 | 1Axel_Euler_3Salchow | | |
| 105 | 2Flip_Euler_3Salchow | | |
| 106 | ChComboSpin1 | | |
| 107 | 4Salchow_3Toeloop_3Loop | | |
| 108 | 3Flip_1Toeloop | | |
| 109 | 3Lutz_1Toeloop_2Salchow | | |
| 110 | 2Flip_2Toeloop_2Loop | | |
| 111 | 2Toeloop_2Toeloop | | |
| 112 | ChoreoStepSequence1 | | |
| 113 | 1Axel_1Toeloop | | |
| 114 | 2Axel_2Toeloop_1Loop | | |
| 115 | 2Toeloop_Euler_3Salchow | | |
| 116 | 2Lutz_Euler_2Salchow | | |
| 117 | FlyChCamelSpin4 | | |
| 118 | 3Toeloop_2Toeloop_2Loop | | |
| 119 | SitSpin3 | | |
| 120 | 3Salchow_2Toeloop_1Loop | | |
| 121 | 3Lutz_3Toeloop_2Loop | | |
| 122 | FlyChComboSpin2 | | |
| 123 | CamelSpin3 | | |
| 124 | 3Axel_1Toeloop | | |
| 125 | 4Flip_2Toeloop | | |
| 126 | 3Lutz_2Toeloop_2Toeloop | | |
| 127 | 3Lutz_3Toeloop_2Toeloop | | |
| 128 | 3Loop_Euler_3Salchow | | |
| 129 | 2Loop_2Toeloop | | |

Table 1: List of all the element-level classes in MCFS. The relative class id in MCFS-22 and MCFS-130 is also provided.