

Coherent-by-construction Multi-label Classification Networks

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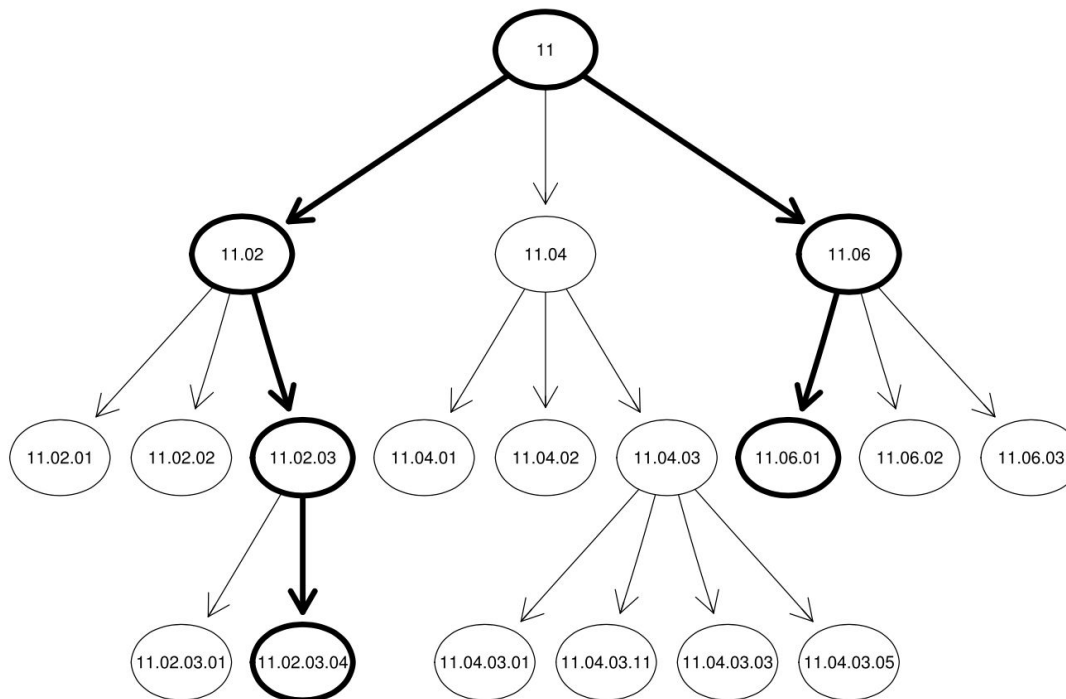
Multi-label classification

Multi-Class

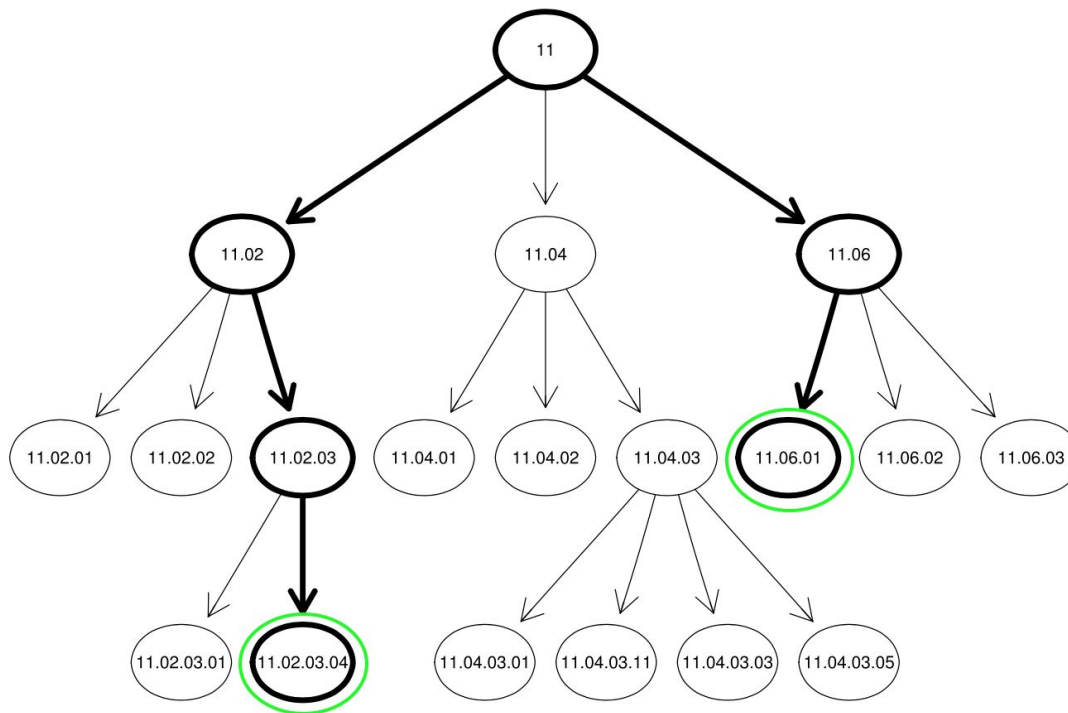
Multi-Label

$C = 3$	<p data-bbox="446 423 620 467">Samples</p> <div data-bbox="519 503 977 636"></div> <p data-bbox="446 685 633 729">Labels (t)</p> <div data-bbox="523 784 962 827">$[0\ 0\ 1]$ $[1\ 0\ 0]$ $[0\ 1\ 0]$</div>	<p data-bbox="1083 423 1257 467">Samples</p> <div data-bbox="1157 503 1615 636"></div> <p data-bbox="1083 685 1271 729">Labels (t)</p> <div data-bbox="1164 784 1603 827">$[1\ 0\ 1]$ $[0\ 1\ 0]$ $[1\ 1\ 1]$</div>
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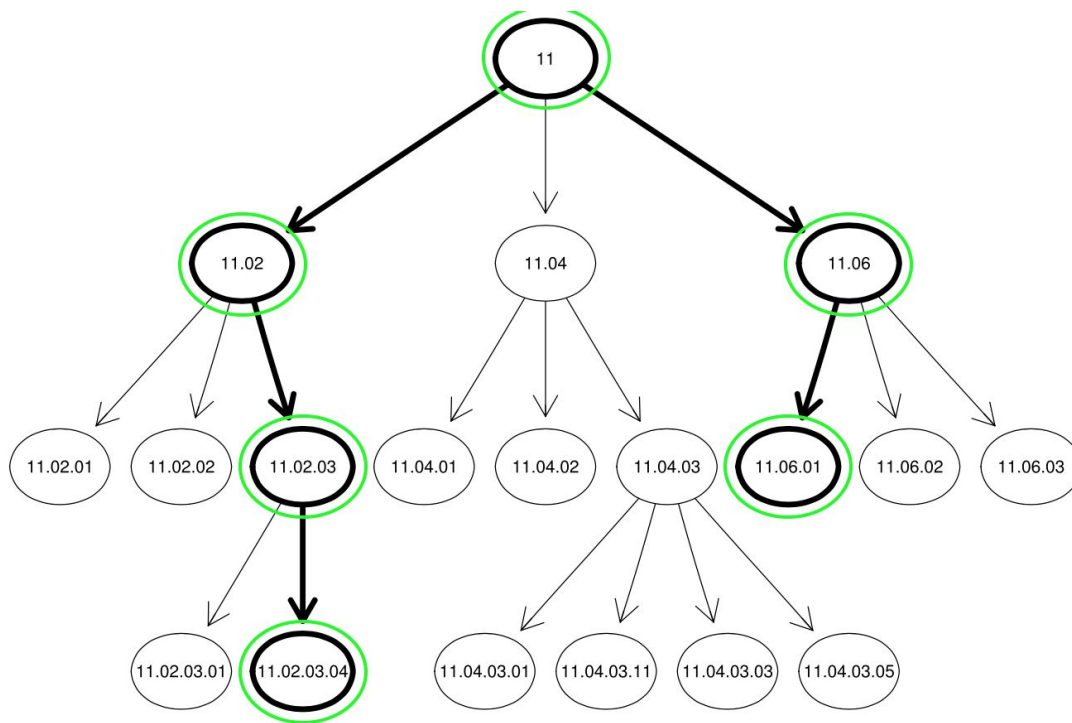
Hierarchical Multi-Label Classification



Hierarchical Multi-Label Classification

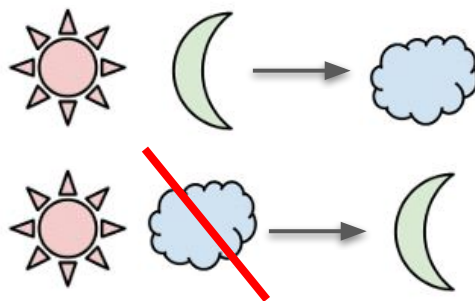


Hierarchical Multi-Label Classification

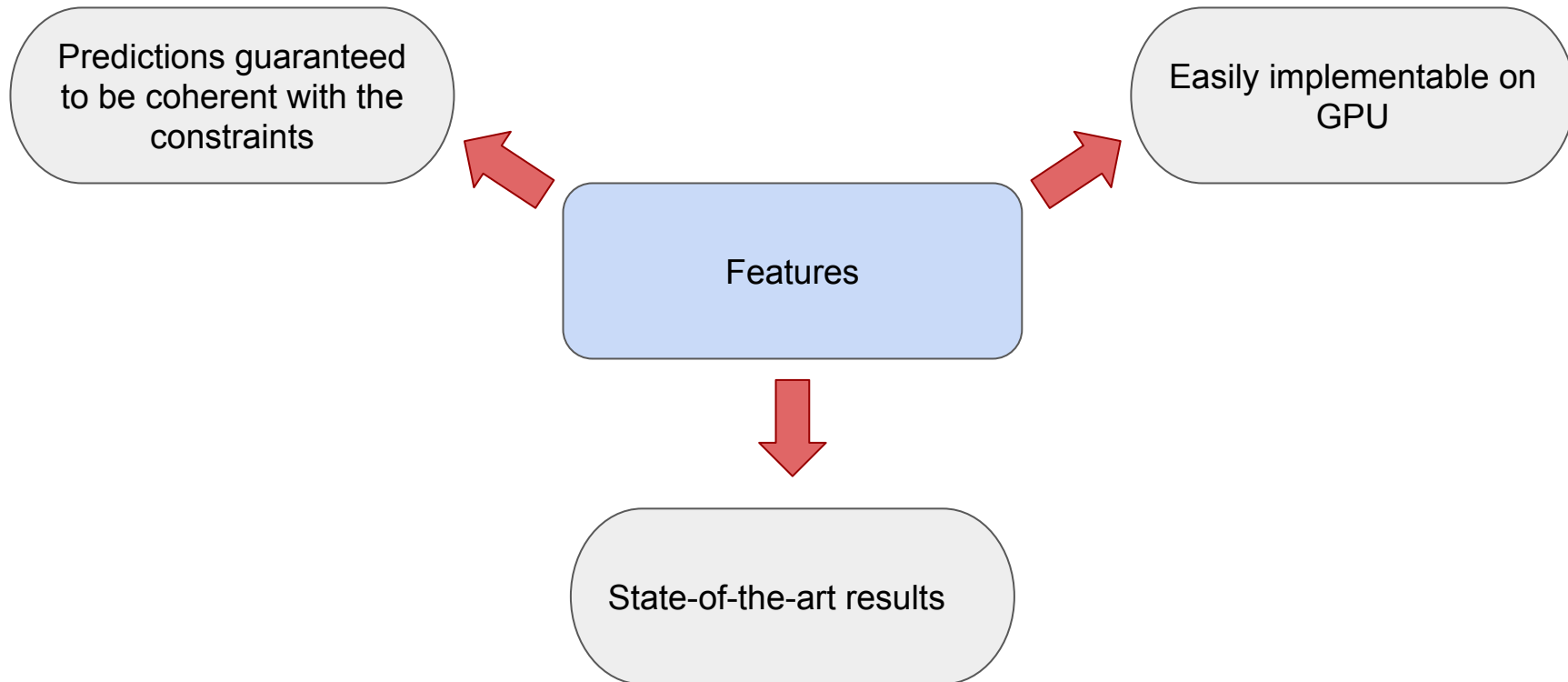


Logically Constrained Multi-label Classification

A logically constrained multi-label classification problem is a MC problem with a finite set of constraints expressed as normal rules.



Our Solution: CCN(h)





Thank you!