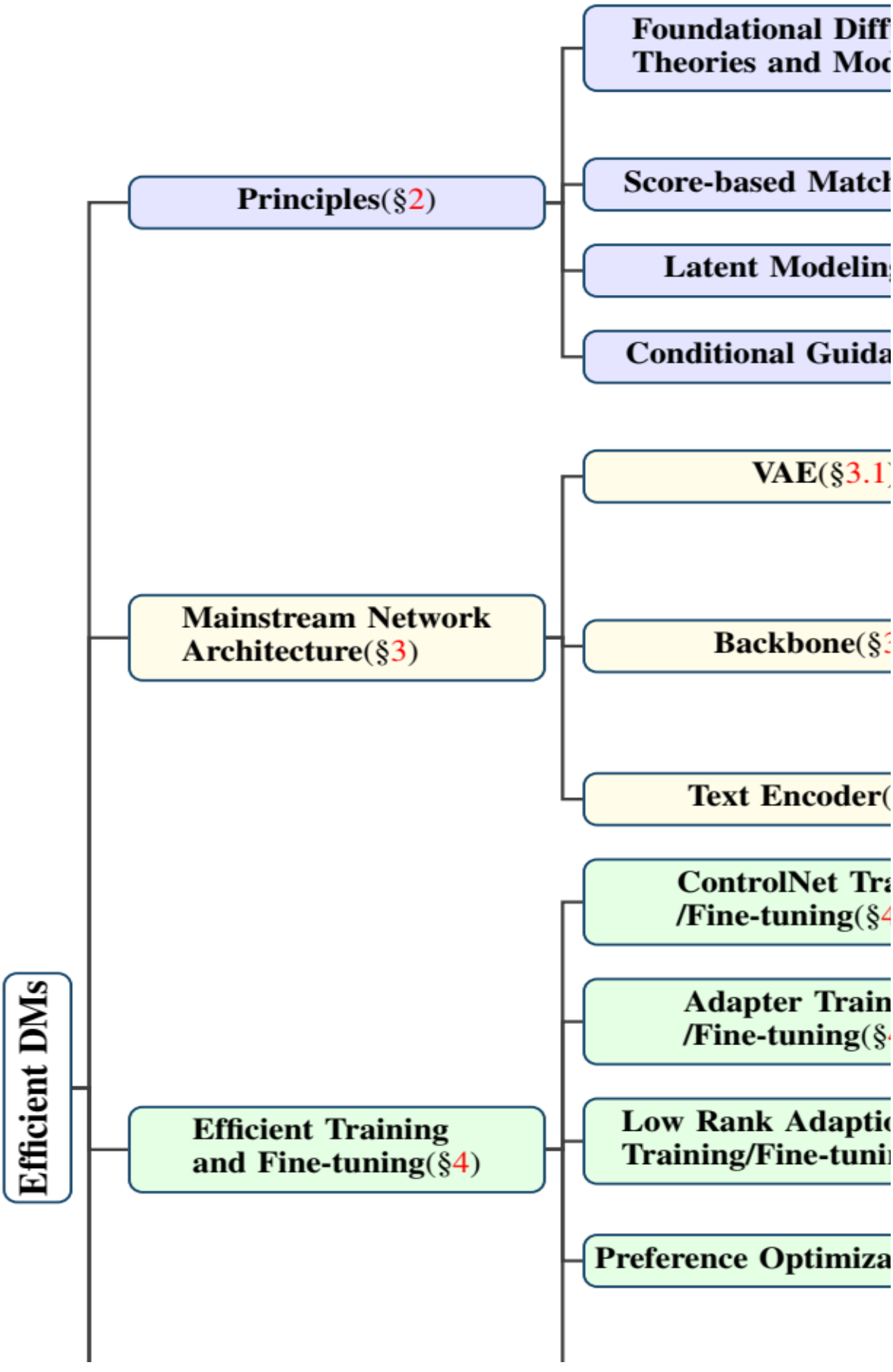
高效扩散模型


Efficient DMs
Principles(§2)
Foundational Diff
Theories and Mod
Score-based Matc
Latent Modelin
Conditional Guida
Mainstream Network
Architecture(§3)
VAE(§3.1
Backbone(§
Text Encoder(
Efficient Training
and Fine-tuning(§4)
ControlNet Tra
/Fine-tuning(§4
Adapter Train
/Fine-tuning(§
Low Rank Adapti
Training/Fine-tuni
Preference Optimiza

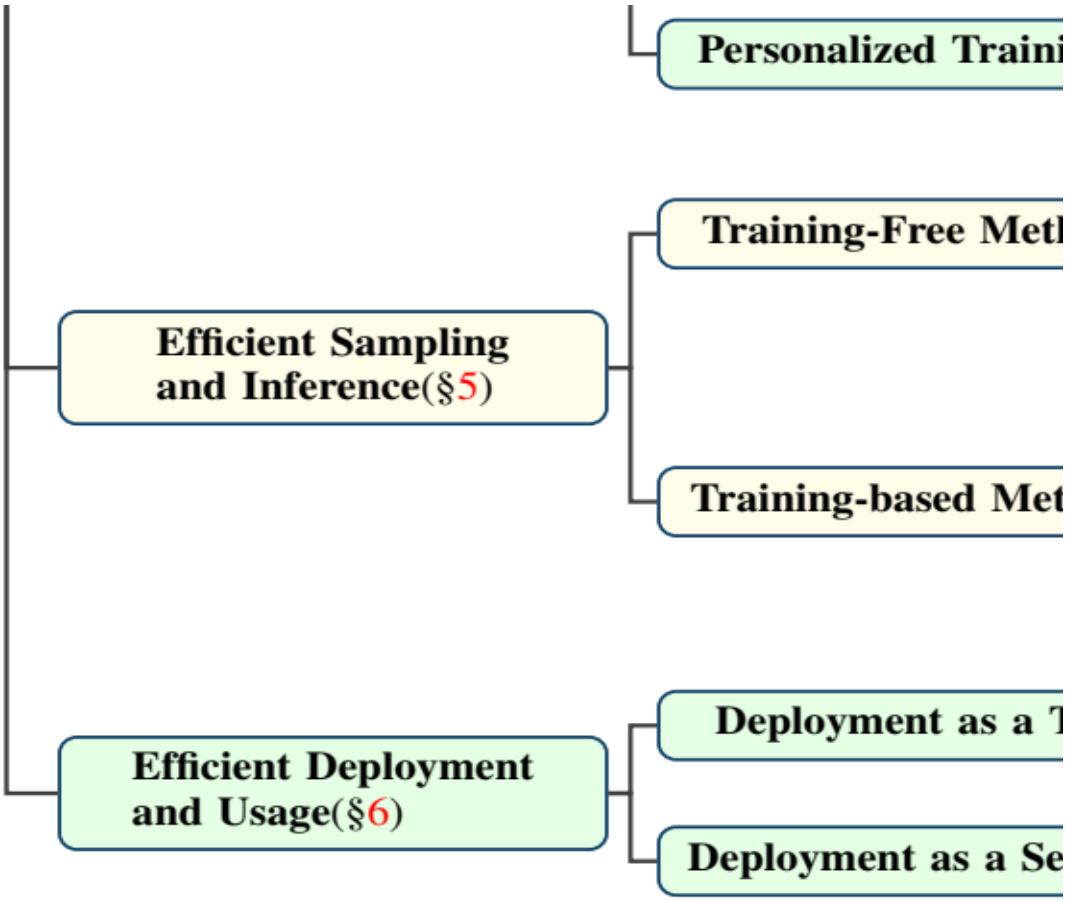
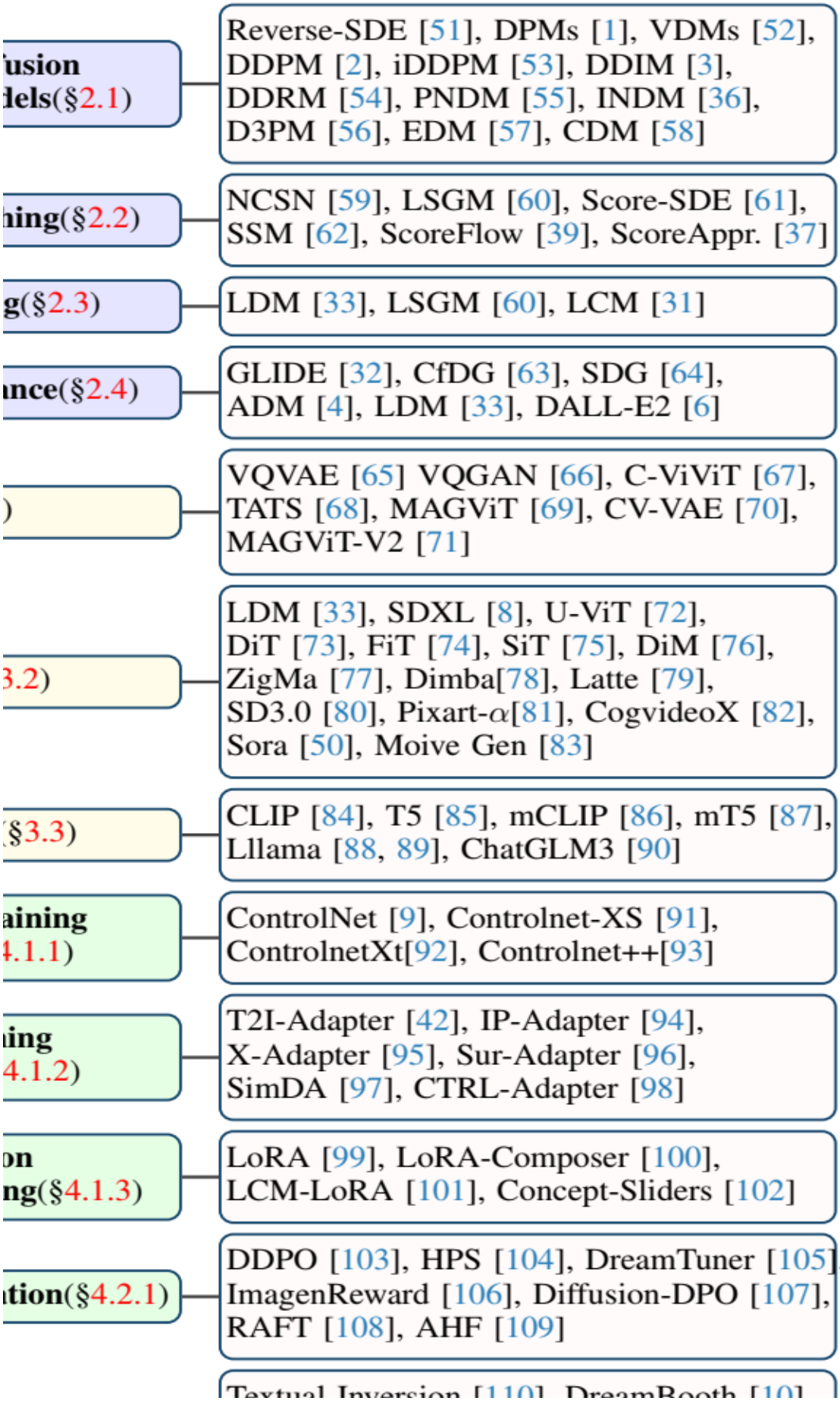
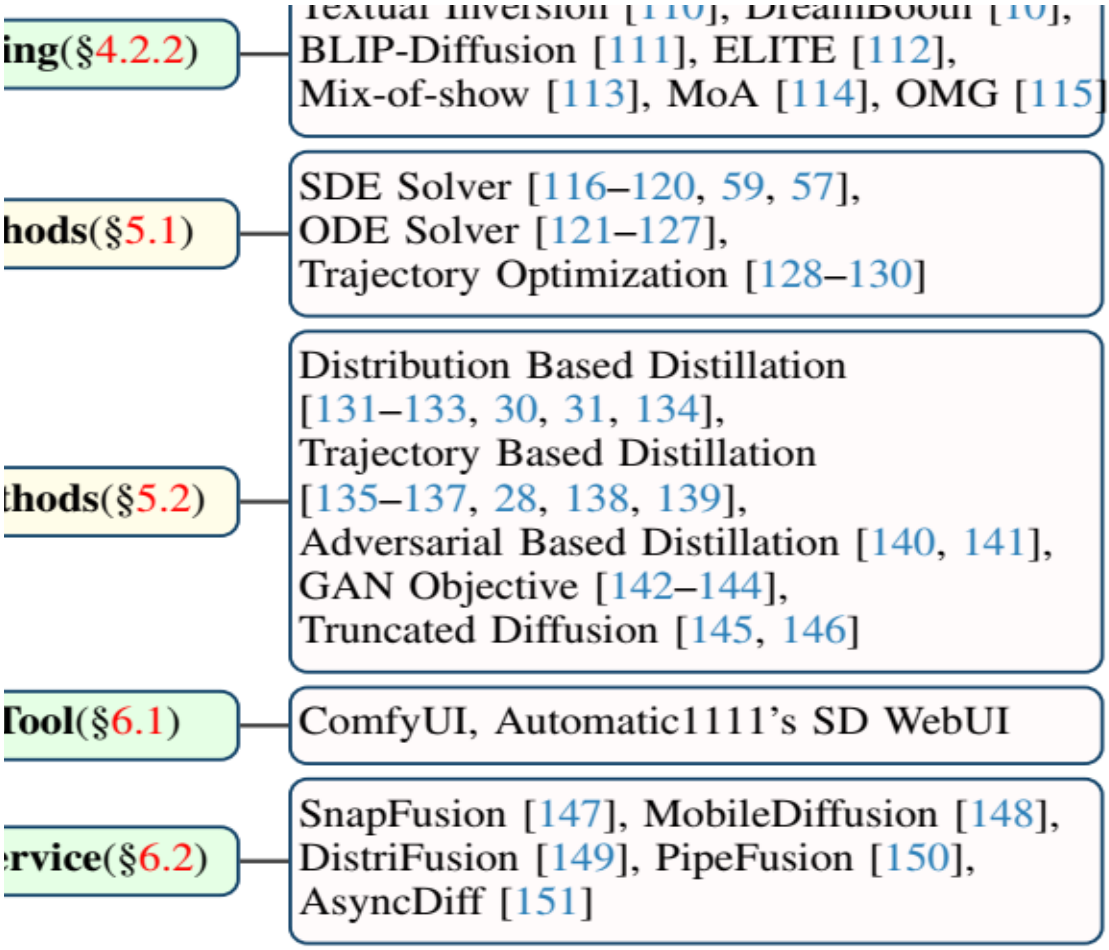


Figure 2: Organization of efficient


usion
dels(§2.1)
Reverse-SDE [51], DPMs [1], VDMs [52], DDPM [2], iDDPM [53], DDIM [3], DDRM [54], PNDM [55], INDM [36], D3PM [56], EDM [57], CDM [58]
ning(§2.2)
NCSN [59], LSGM [60], Score-SDE [61], SSM [62], ScoreFlow [39], ScoreAppr. [37]
g(§2.3)
LDM [33], LSGM [60], LCM [31]
nce(§2.4)
GLIDE [32], CfDG [63], SDG [64], ADM [4], LDM [33], DALL-E2 [6]
)
VQVAE [65] VQGAN [66], C-ViViT [67], TATS [68], MAGViT [69], CV-VAE [70], MAGViT-V2 [71]
3.2)
LDM [33], SDXL [8], U-ViT [72], DiT [73], FiT [74], SiT [75], DiM [76], ZigMa [77], Dimba[78], Latte [79], SD3.0 [80], Pixart-α[81], CogvideoX [82], Sora [50], Moive Gen [83]
§3.3)
CLIP [84], T5 [85], mCLIP [86], mT5 [87], Lllama [88, 89], ChatGLM3 [90]
aining
4.1.1)
ControlNet [9], Controlnet-XS [91], ControlnetXt[92], Controlnet++[93]
ing
4.1.2)
T2I-Adapter [42], IP-Adapter [94], X-Adapter [95], Sur-Adapter [96], SimDA [97], CTRL-Adapter [98]
on
ng(§4.1.3)
LoRA [99], LoRA-Composer [100], LCM-LoRA [101], Concept-Sliders [102]
tion(§4.2.1)
DDPO [103], HPS [104], DreamTuner [105], ImagenReward [106], Diffusion-DPO [107], RAFT [108], AHF [109]
Textual Inversion [110], DreamBooth [10]



diffusion models advancements.