

Pensieve header: The full list of V equations is seeking a topological narrative.

```
SetDirectory["C:\\drorbn\\AcademicPensieve\\2012-05\\beta5.0"];
<< betaCalculus.m
Clear[ħ]; Unprotect[C];
$PerturbativeDegree = 6;
βSimplify[expr_] := Replace[
  Series[Normal[expr], {ħ, 0, $PerturbativeDegree}],
  sd_SeriesData => MapAt[Expand, sd, 3]
];
βCollect[B[ω_, μ_]] := B[
  βSimplify[ω],
  βSimplify[μ]
];
{V, C, sol} = Get["SolutionToDegree6-120501.m"];
{
  "R4" → R[2, 3] ** R[1, 3] ** V == V ** (R[1, 3] // dΔ[1, 1, 2]),
  "TwistEq" → V ** θ[1, 2] == R[1, 2] ** (V // dP[2, 1]),
  "Unitarity" → V ** (V // dA[1] // dA[2]) == B[1, 0],
  "VerticalFlipEquation" → V ** (V // dS[1] // dS[2]) == R[1, 2],
  "CapEquation" → (V ** (C // dP[12]) // dcap[1] // dcap[2]) ==
    (C * (C // dP[2]) // dcap[1] // dcap[2]),
  "SidesNonDegeneracy" → (V // dη[1]) == B[1, 0] && (V // dη[2]) == B[1, 0],
  "CapsAndCups" → C == (C // dS[1])
}
{R4 → True, TwistEq → True, Unitarity → True, VerticalFlipEquation → True,
  CapEquation → True, SidesNonDegeneracy → True, CapsAndCups → True}
```