$\square$
$\square$

## Currents and effective resistance

$\Delta$ A flow $i$ from $u$ to $v$ is a
$\square$

## Walsh decomposition

$\square$

## Computation of $\frac{\partial i i^{, v}(e)}{\partial r(e)}$

## Differentiate the node and cycle laws:

$$
d *_{r}=u-
$$

$\square$
$\square$

## Consequence of (2): Gaussian approximation

$$
\overline{\mathrm{R}}:=\frac{\mathrm{R}-\mathrm{E}(\mathrm{R})}{\sqrt{\operatorname{Var}(\mathrm{R})}}
$$

Define $\mathrm{J}(\mathrm{L})=\{$

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## To summarize . . .

Two conditions for gaussian approximation:
$\Delta \alpha(L)=\sup _{e}$,
$\square$

## Adaptation of the preceding setting?

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