Erratum paper
W.M.P. van der Aalst,
Decomposing Petri Nets for Process Mining: A Generic Approach,

In the published paper two requirements regarding transition labels are missing
(but from the text it is clear that they are assumed right from the start).

In Definition 17 the requirement $\text{rng}(l_i) \cap \text{rng}(l_j) \subseteq A^u_v(SN)$ for $1 \leq i < j \leq n$
was not stated explicitly, i.e., subnets may only share labels through unique
visible transitions. The complete definition is given below.

**Definition 17 (Valid Decomposition).** Let $SN \in U_{SN}$ be a system net with
labeling function $l$. $D = \{SN^1, SN^2, \ldots, SN^n\} \subseteq U_{SN}$ is a valid decomposition
if and only if
- $SN^i = (N^i, M^i_{\text{init}}, M^i_{\text{final}})$ is a system net with $N^i = (P^i, T^i, F^i, l^i)$ for all $1 \leq i \leq n$,
- $l^i|_{T^i}$ for all $1 \leq i \leq n$,
- $P^i \cap P^j = \emptyset$ for $1 \leq i < j \leq n$,
- $T^i \cap T^j \subseteq T^v_u(SN)$ and $\text{rng}(l_i) \cap \text{rng}(l_j) \subseteq A^u_v(SN)$ for $1 \leq i < j \leq n$, and
- $SN = \bigcup_{1 \leq i \leq n} SN^i$.
$D(SN)$ is the set of all valid decompositions of $SN$.

In Theorem 2 it was implicitly assumed that the log only uses activities also in
the model: $A_v(SN) = A$. This was clear from context but not stated explicitly.

**Theorem 2 (Conformance Checking Can be Decomposed).** Let $L \in B(A^*)$ be an event log with $A \subseteq U_A$ and let $SN \in U_{SN}$ be a system net with $A_v(SN) = A$. For any valid decomposition $D = \{SN^1, SN^2, \ldots, SN^n\} \in D(SN)$: $L$ is perfectly fitting system net $SN$ if and only if for all $1 \leq i \leq n$: $L|_{A_v(SN^i)}$ is perfectly fitting $SN^i$.

Additional minor typo’s:
- $\gamma'_3$ is an alignment for trace $\langle a, b, b, d, e, b, d, g, f \rangle$ (page 488)

Wil van der Aalst, January 2014.